

Figure 1

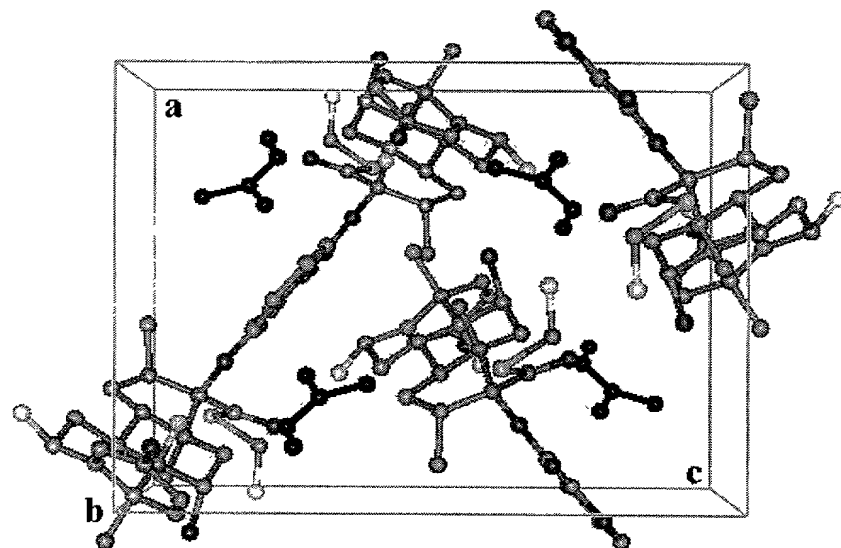
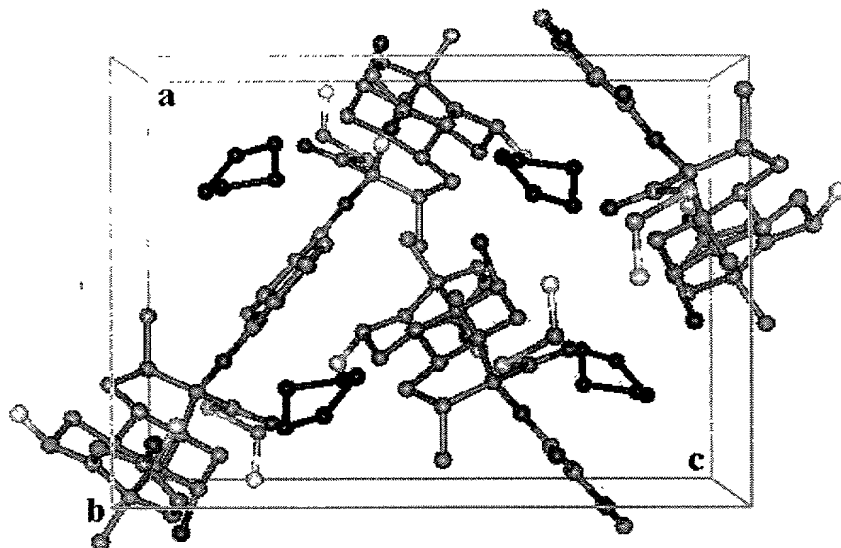


Figure 2A

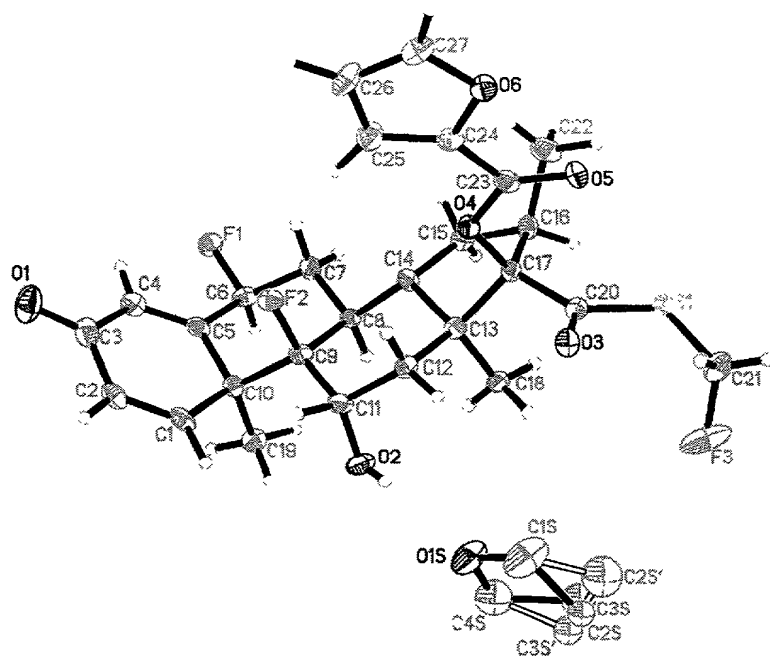


Figure 2B

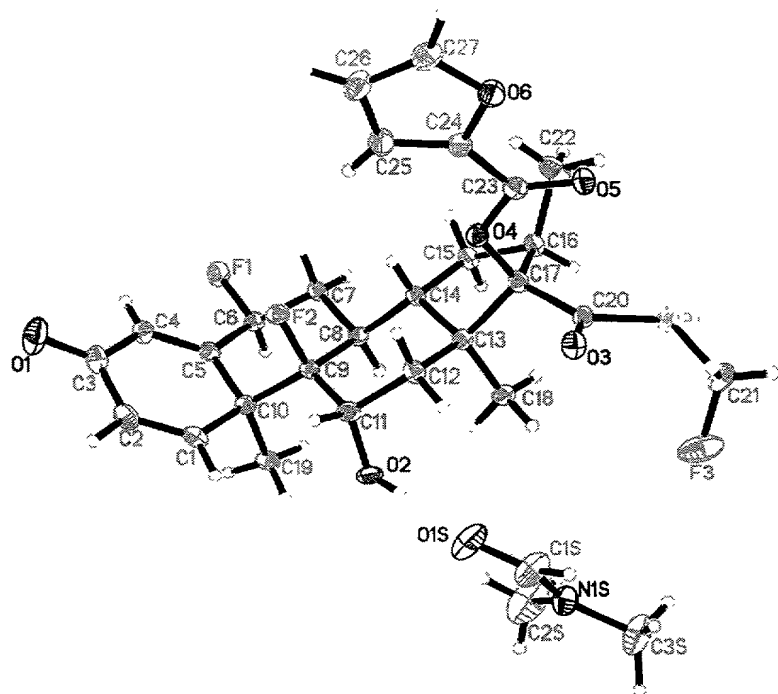


Figure 3

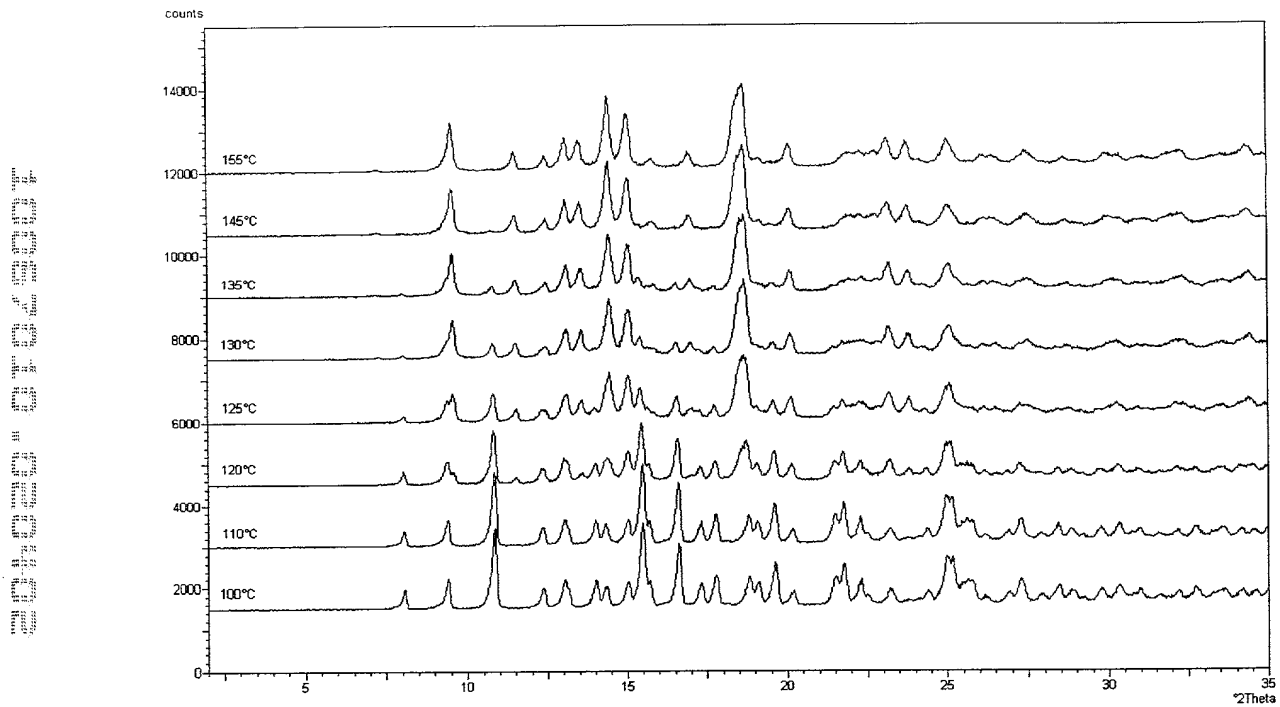


Figure 4

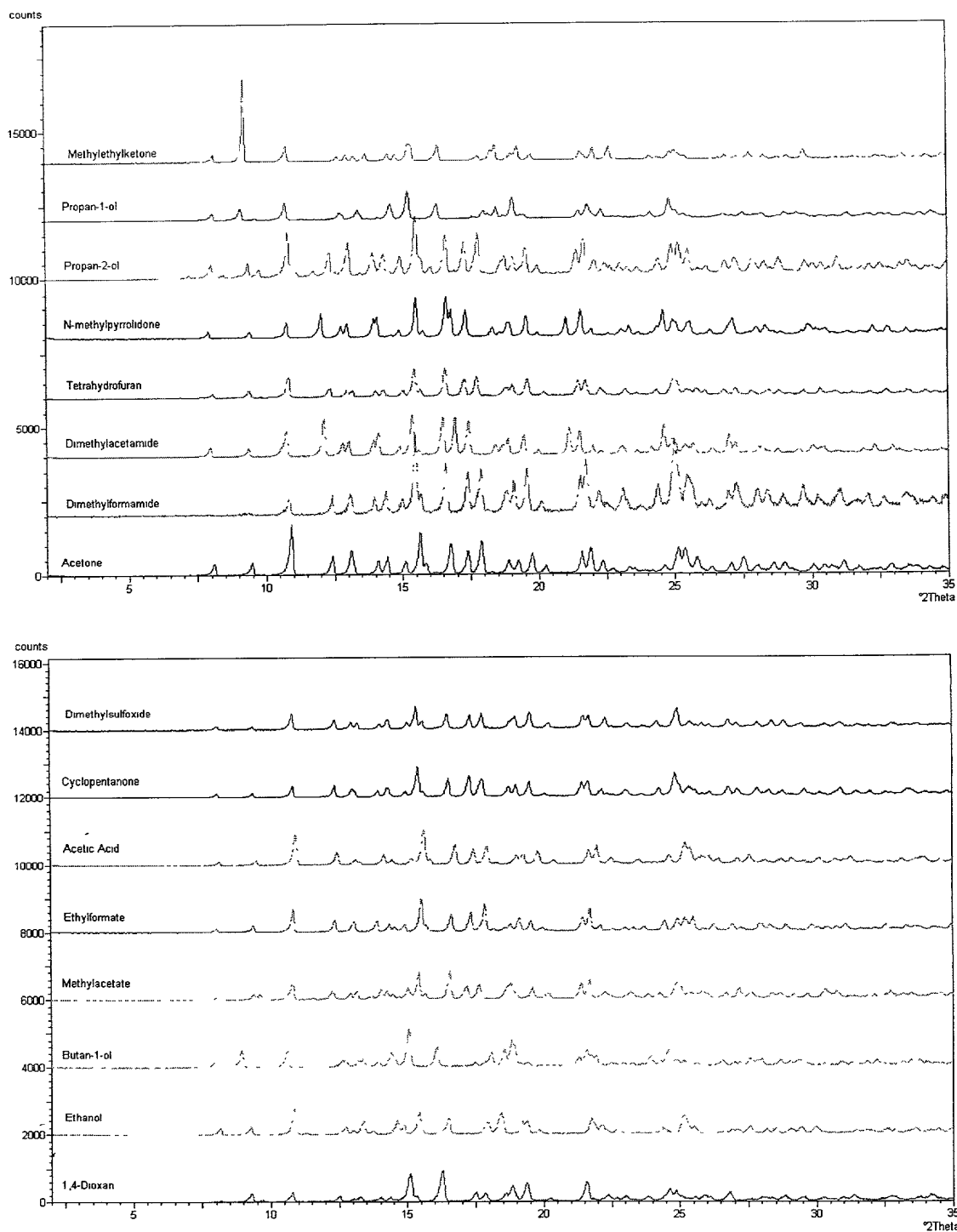


Figure 5

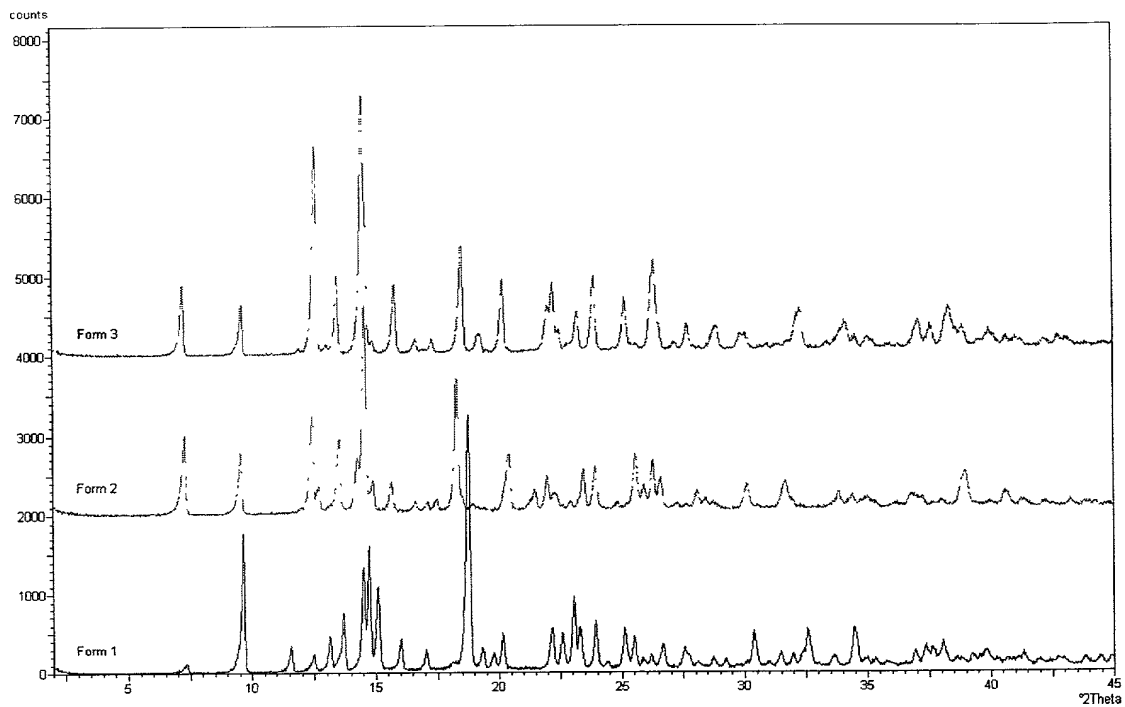


Figure 6

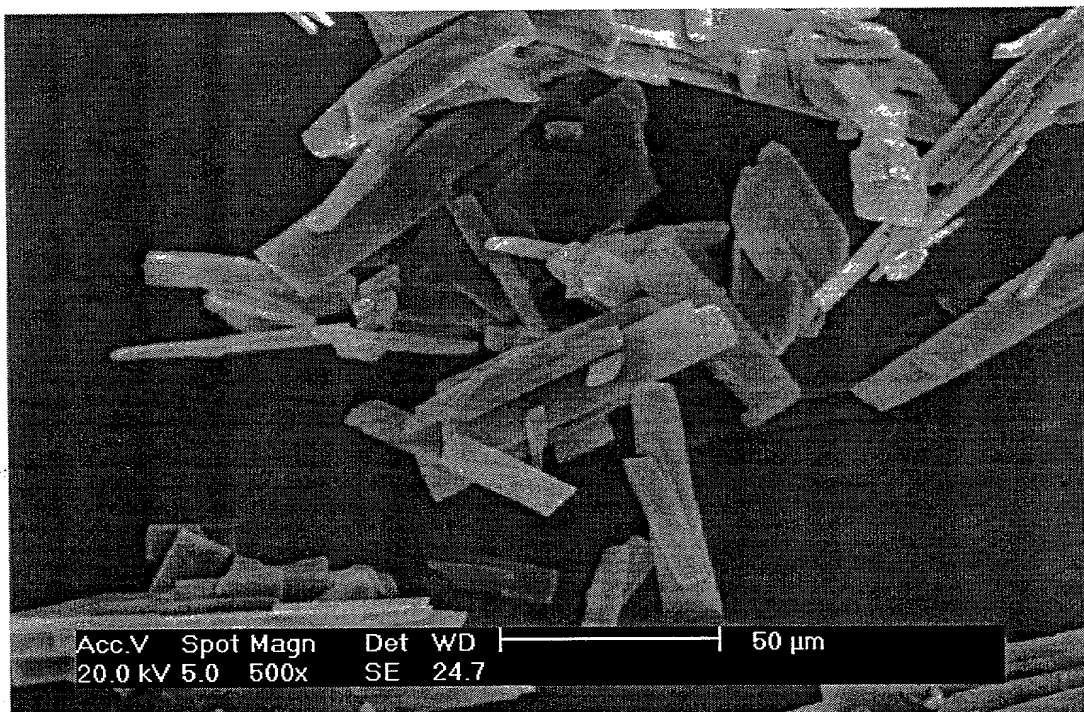
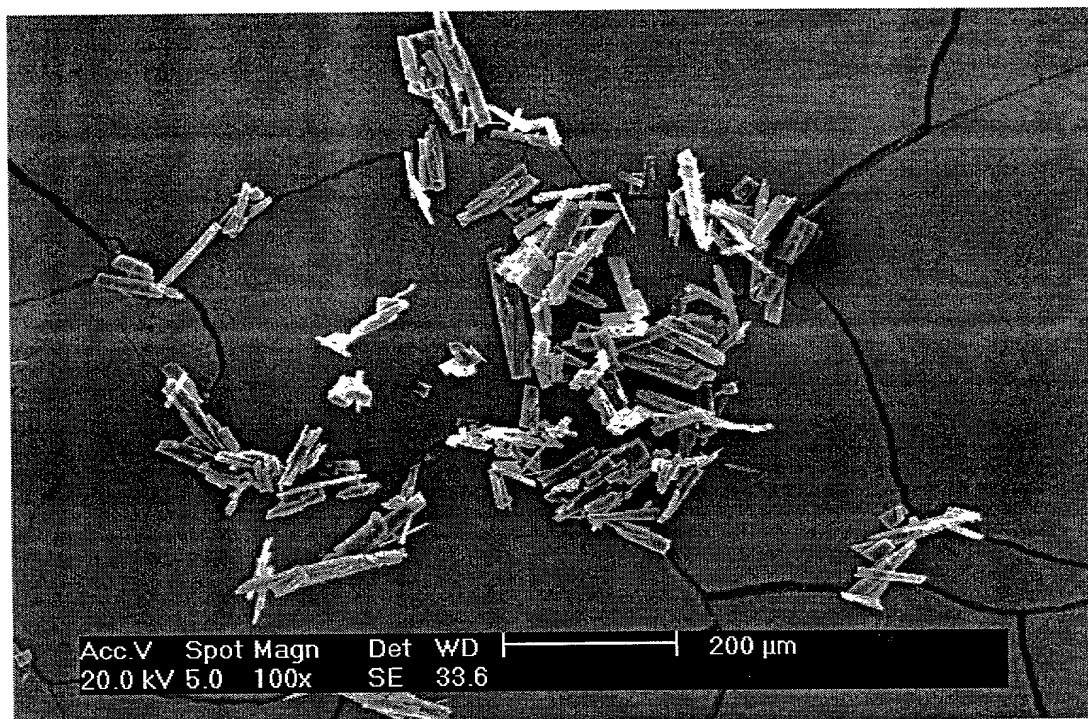


Figure 7

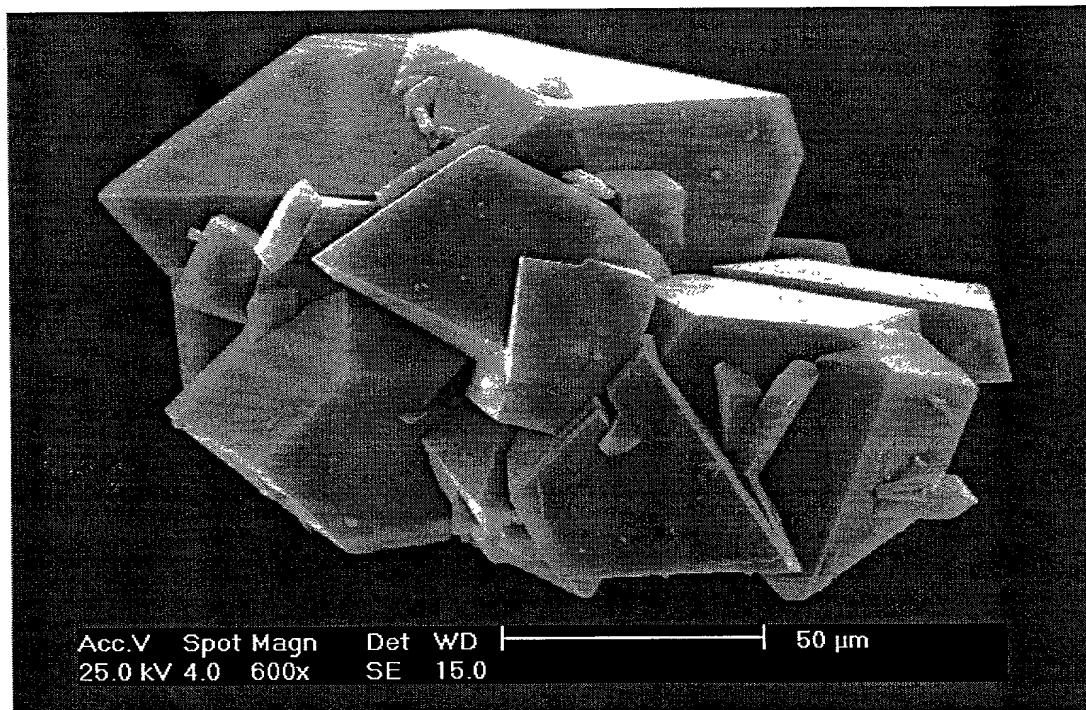
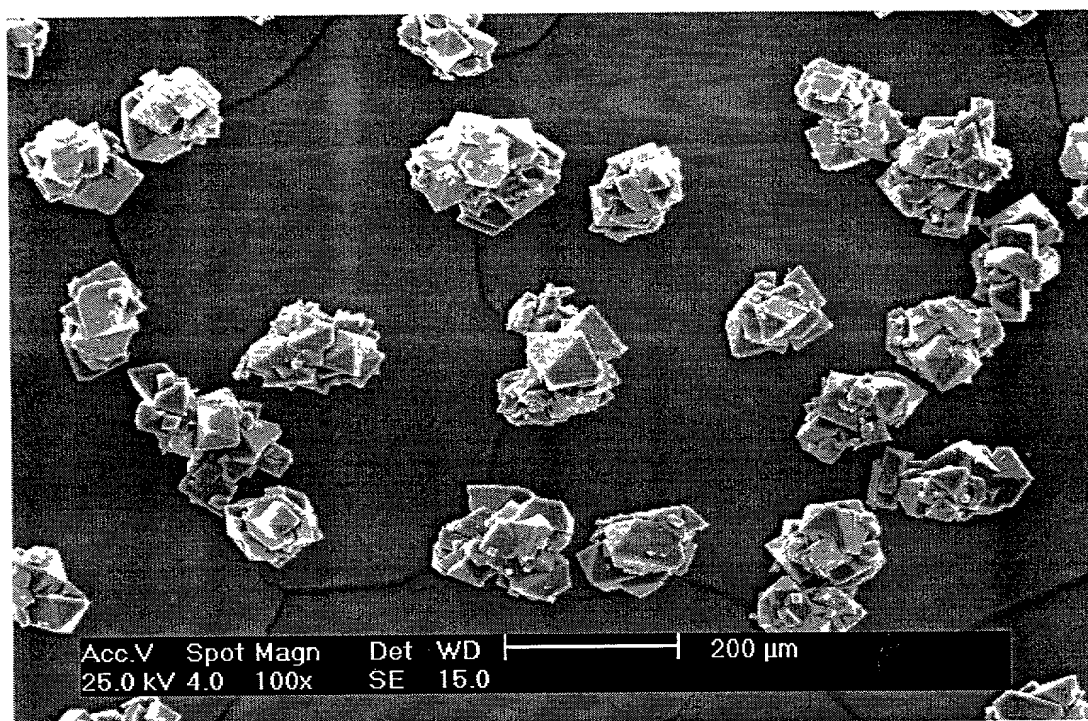


Figure 8

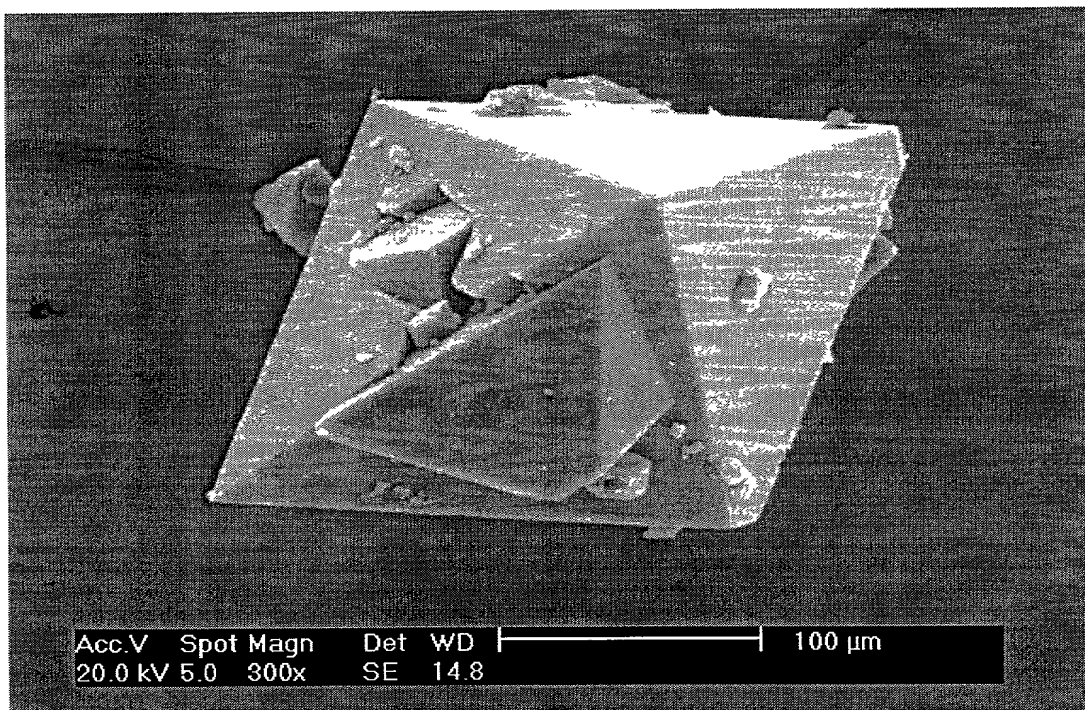
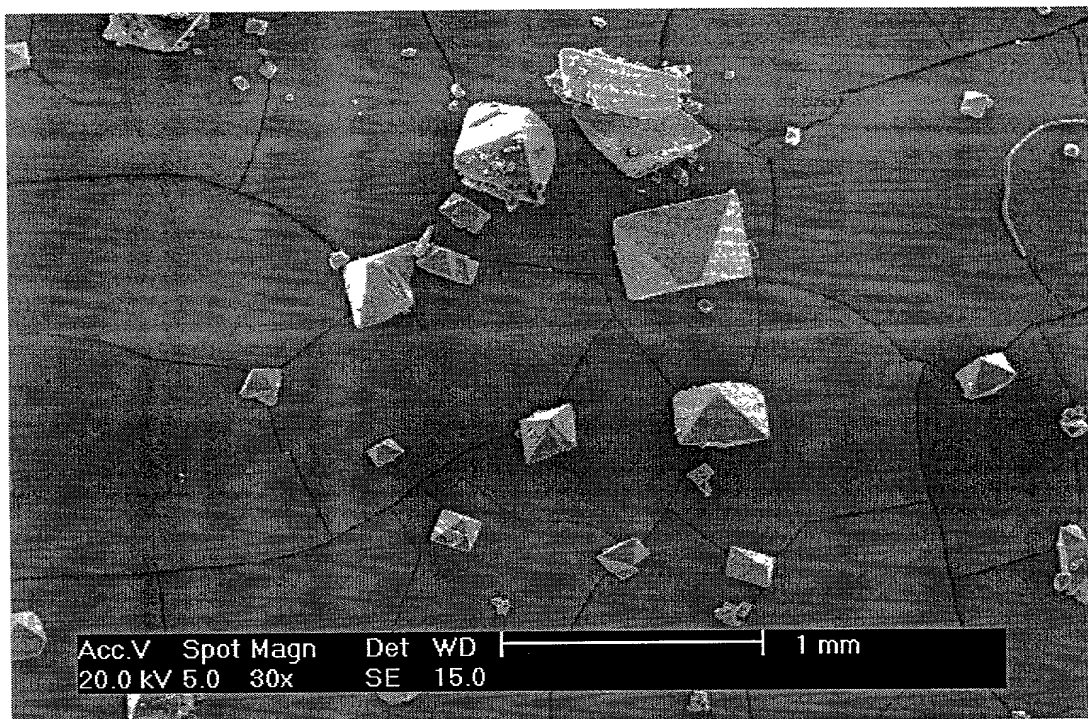


Figure 9

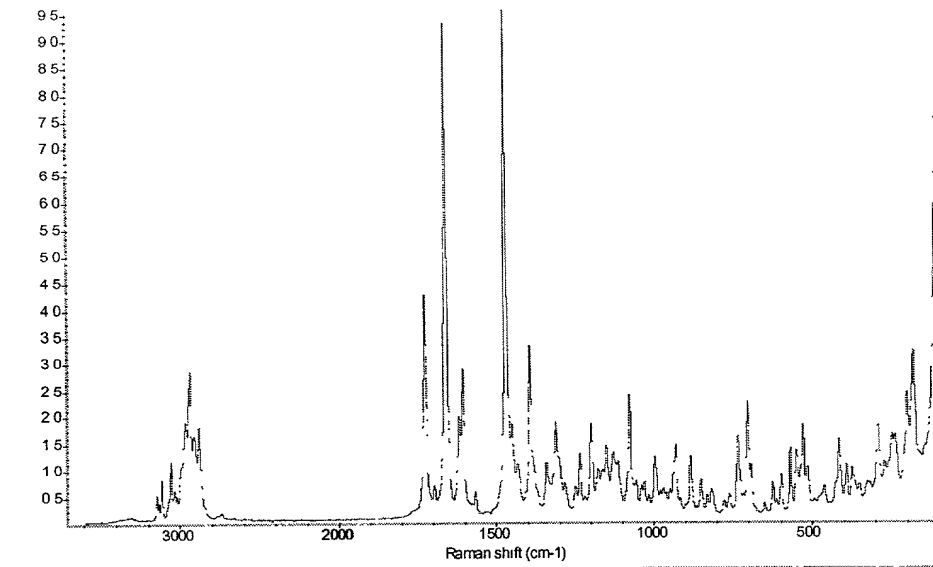


Figure 10

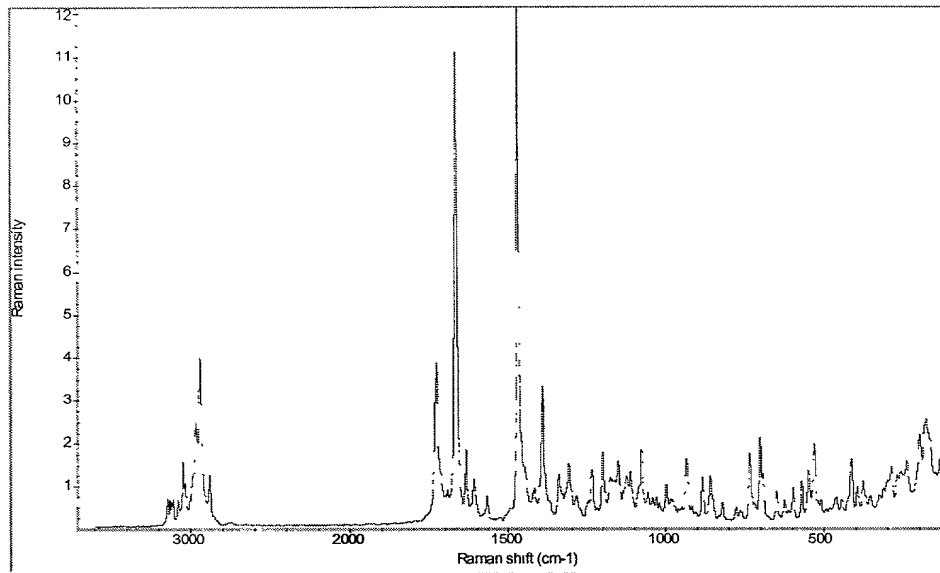


Figure 11

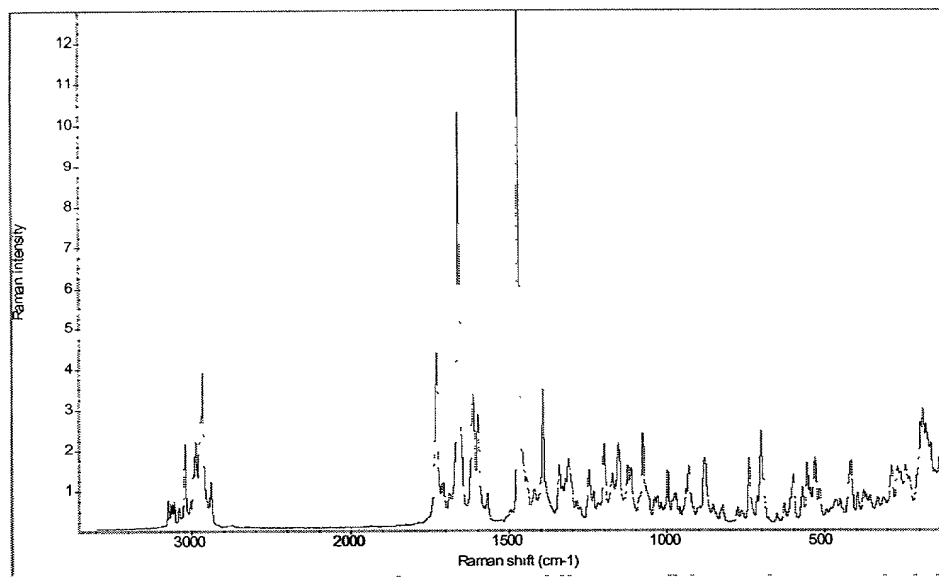


Figure 12

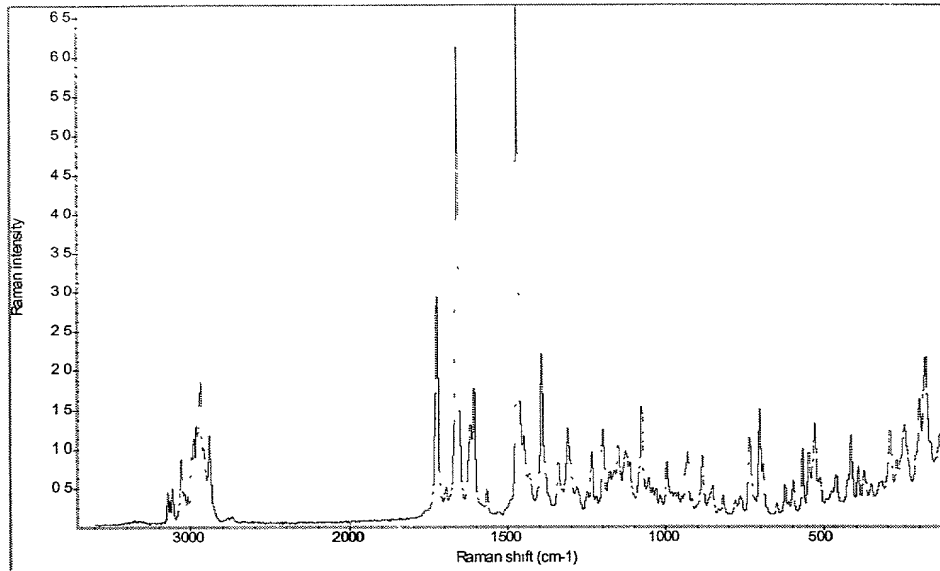


Figure 13

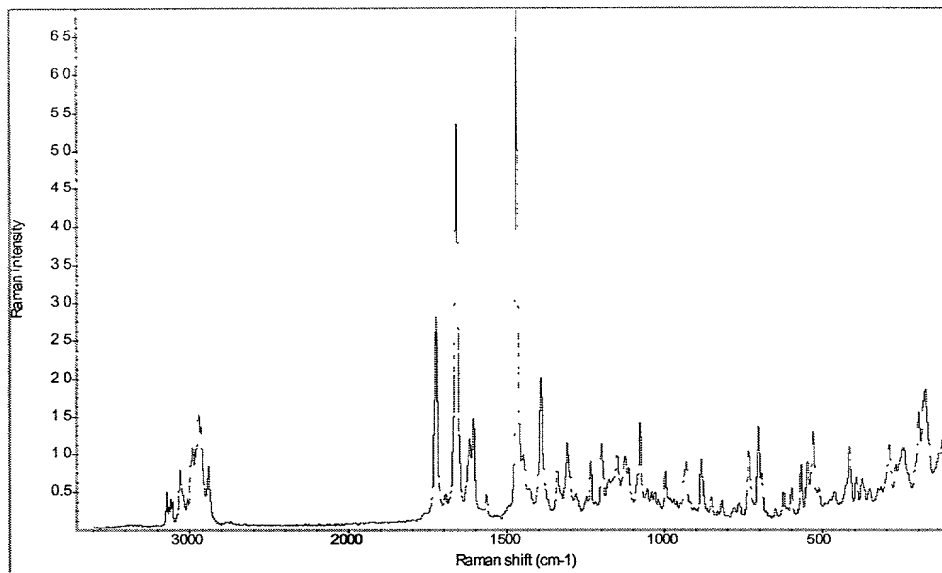


Figure 14

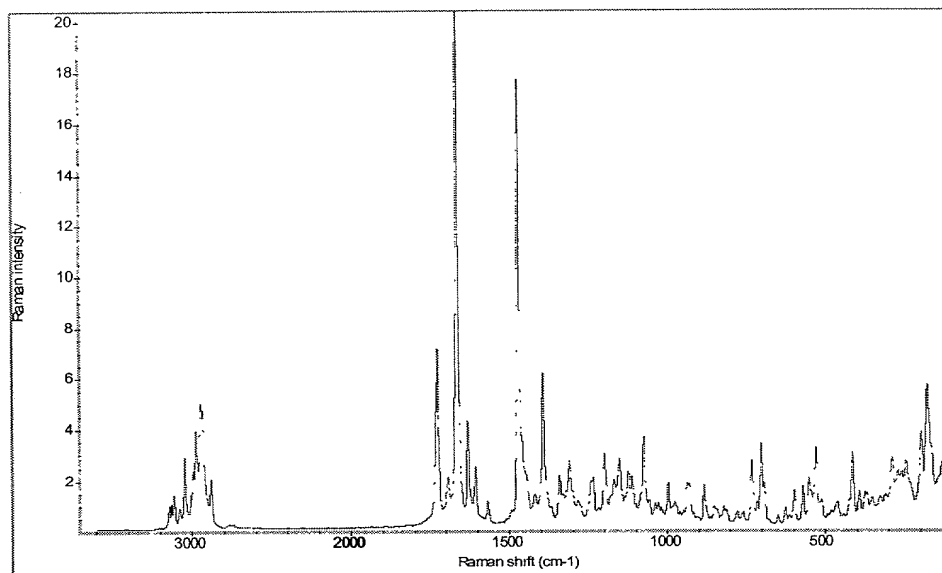


Figure 15

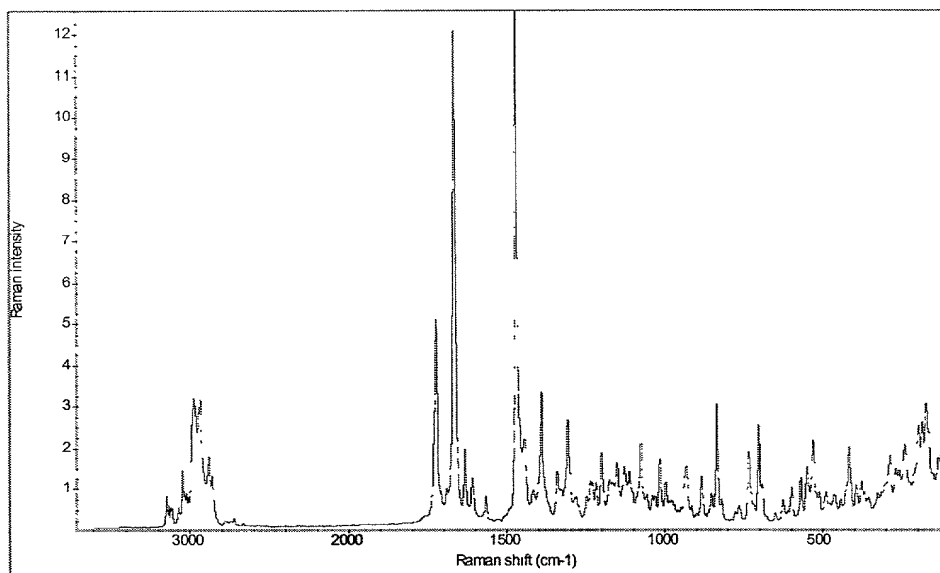
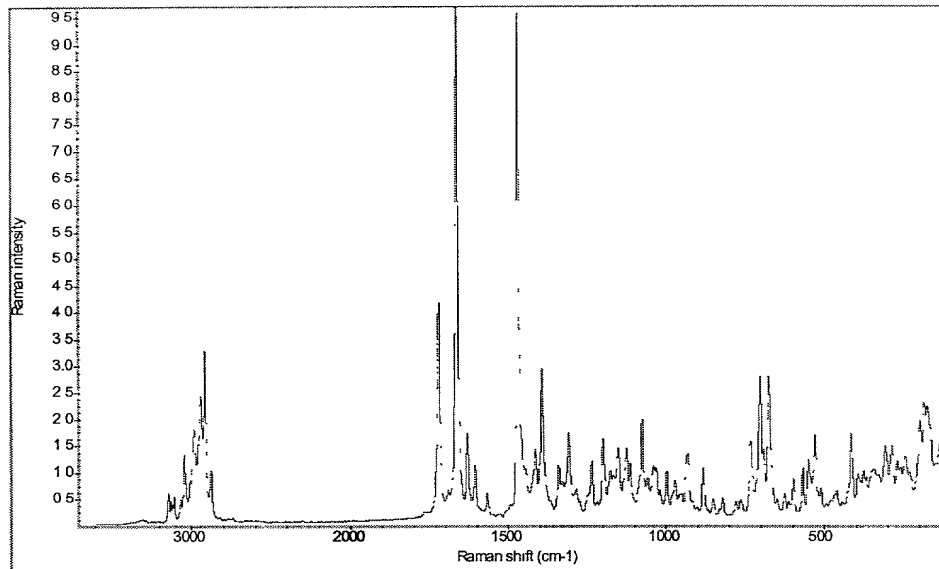


Figure 16



Country	Year	Population (millions)	Urban population (millions)	Urban population (%)	Population density (per sq km)	Urban population density (per sq km)
Algeria	1975	11.5	5.5	48	100	100
Algeria	1980	12.5	6.5	52	110	110
Algeria	1985	13.5	7.5	55	120	120
Algeria	1990	14.5	8.5	59	130	130
Algeria	1995	15.5	9.5	61	140	140
Algeria	2000	16.5	10.5	64	150	150
Algeria	2005	17.5	11.5	66	160	160
Algeria	2010	18.5	12.5	68	170	170
Algeria	2015	19.5	13.5	69	180	180
Algeria	2020	20.5	14.5	71	190	190
Algeria	2025	21.5	15.5	72	200	200
Algeria	2030	22.5	16.5	73	210	210
Algeria	2035	23.5	17.5	75	220	220
Algeria	2040	24.5	18.5	76	230	230
Algeria	2045	25.5	19.5	77	240	240
Algeria	2050	26.5	20.5	77	250	250
Algeria	2055	27.5	21.5	78	260	260
Algeria	2060	28.5	22.5	79	270	270
Algeria	2065	29.5	23.5	80	280	280
Algeria	2070	30.5	24.5	80	290	290
Algeria	2075	31.5	25.5	81	300	300
Algeria	2080	32.5	26.5	82	310	310
Algeria	2085	33.5	27.5	82	320	320
Algeria	2090	34.5	28.5	83	330	330
Algeria	2095	35.5	29.5	83	340	340
Algeria	2100	36.5	30.5	84	350	350
Algeria	2105	37.5	31.5	84	360	360
Algeria	2110	38.5	32.5	84	370	370
Algeria	2115	39.5	33.5	85	380	380
Algeria	2120	40.5	34.5	85	390	390
Algeria	2125	41.5	35.5	86	400	400
Algeria	2130	42.5	36.5	86	410	410
Algeria	2135	43.5	37.5	86	420	420
Algeria	2140	44.5	38.5	87	430	430
Algeria	2145	45.5	39.5	87	440	440
Algeria	2150	46.5	40.5	87	450	450
Algeria	2155	47.5	41.5	87	460	460
Algeria	2160	48.5	42.5	88	470	470
Algeria	2165	49.5	43.5	88	480	480
Algeria	2170	50.5	44.5	88	490	490
Algeria	2175	51.5	45.5	88	500	500
Algeria	2180	52.5	46.5	89	510	510
Algeria	2185	53.5	47.5	89	520	520
Algeria	2190	54.5	48.5	89	530	530
Algeria	2195	55.5	49.5	90	540	540
Algeria	2200	56.5	50.5	90	550	550
Algeria	2205	57.5	51.5	90	560	560
Algeria	2210	58.5	52.5	90	570	570
Algeria	2215	59.5	53.5	90	580	580
Algeria	2220	60.5	54.5	91	590	590
Algeria	2225	61.5	55.5	91	600	600
Algeria	2230	62.5	56.5	91	610	610
Algeria	2235	63.5	57.5	91	620	620
Algeria	2240	64.5	58.5	91	630	630
Algeria	2245	65.5	59.5	91	640	640
Algeria	2250	66.5	60.5	92		

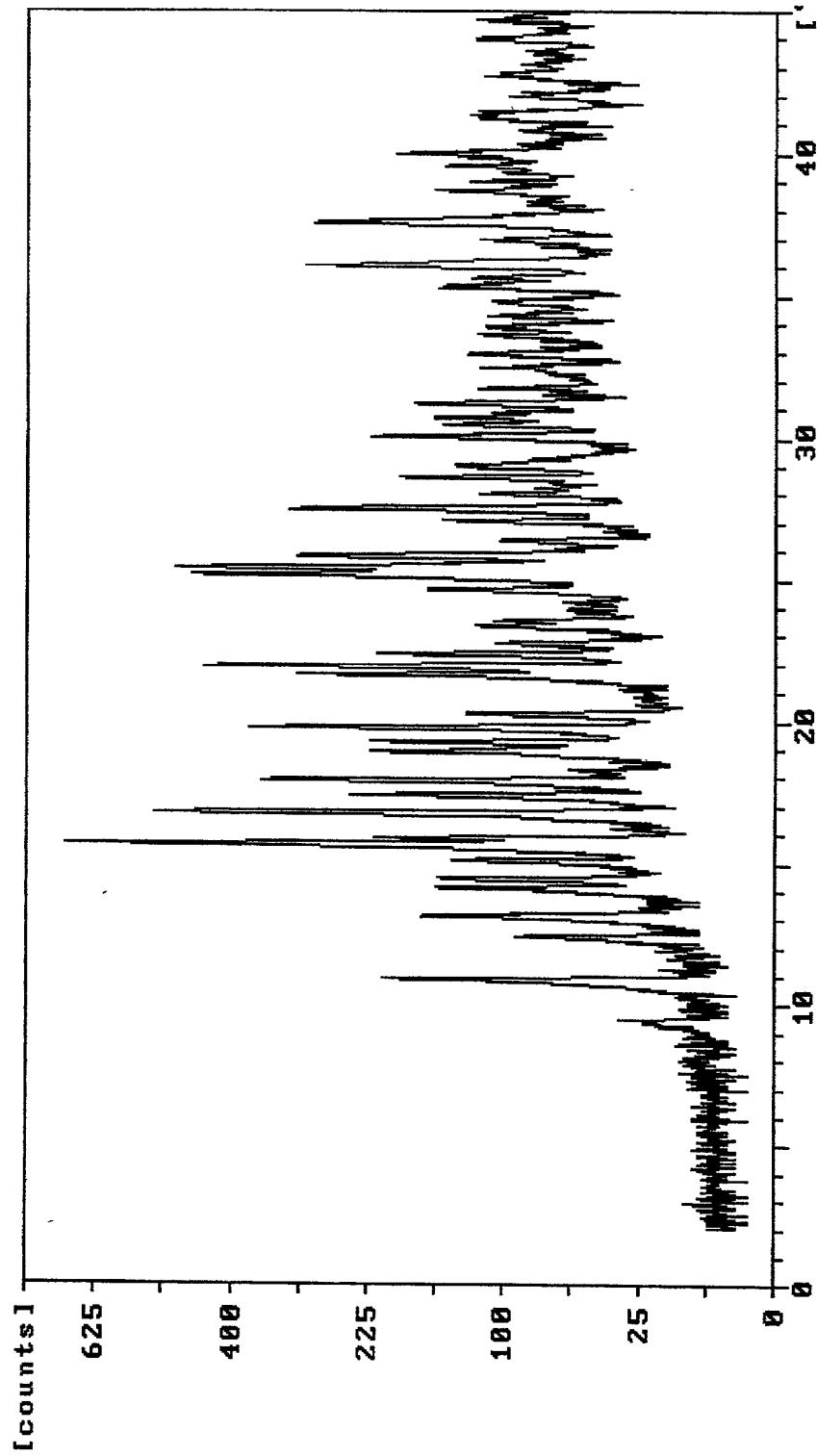
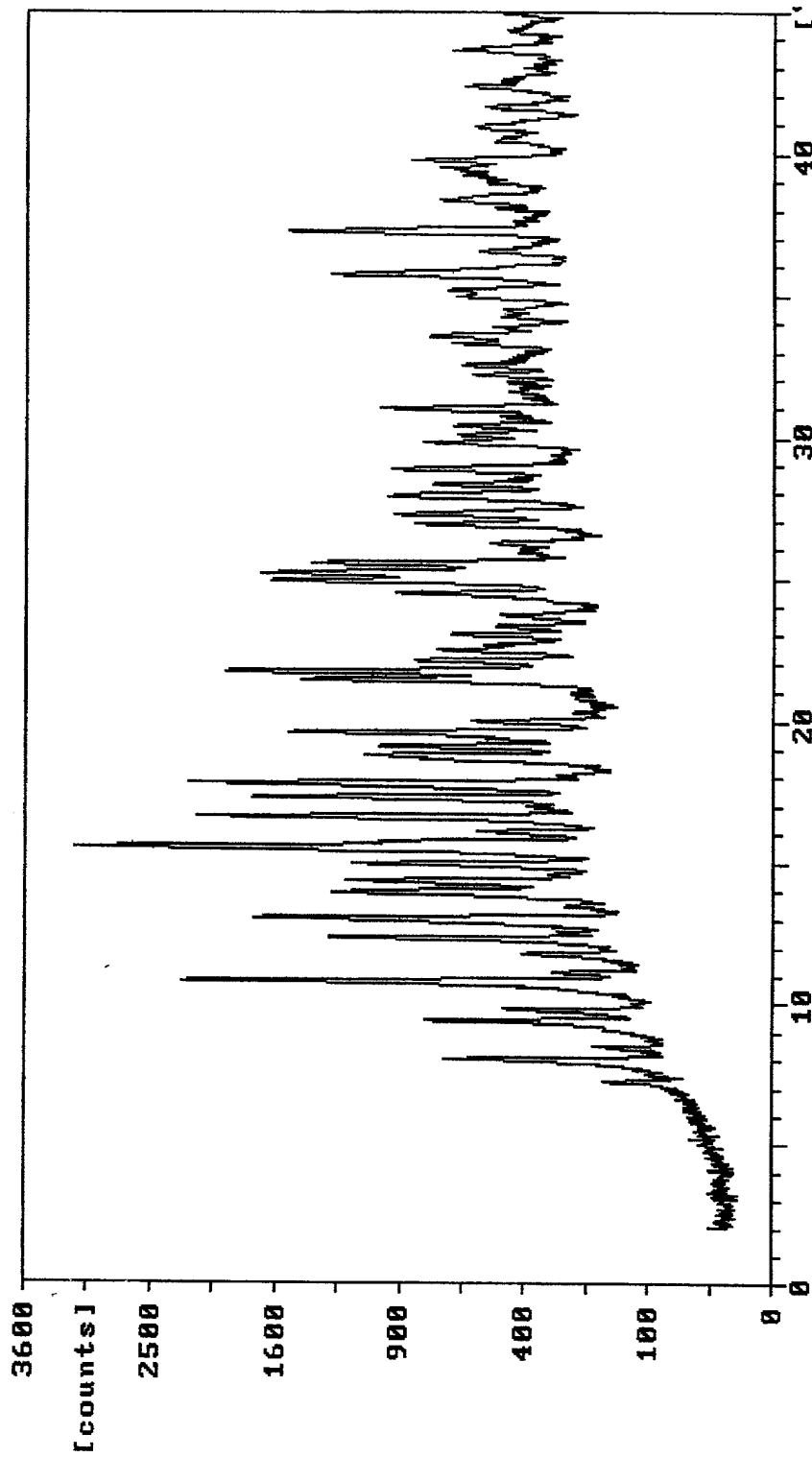
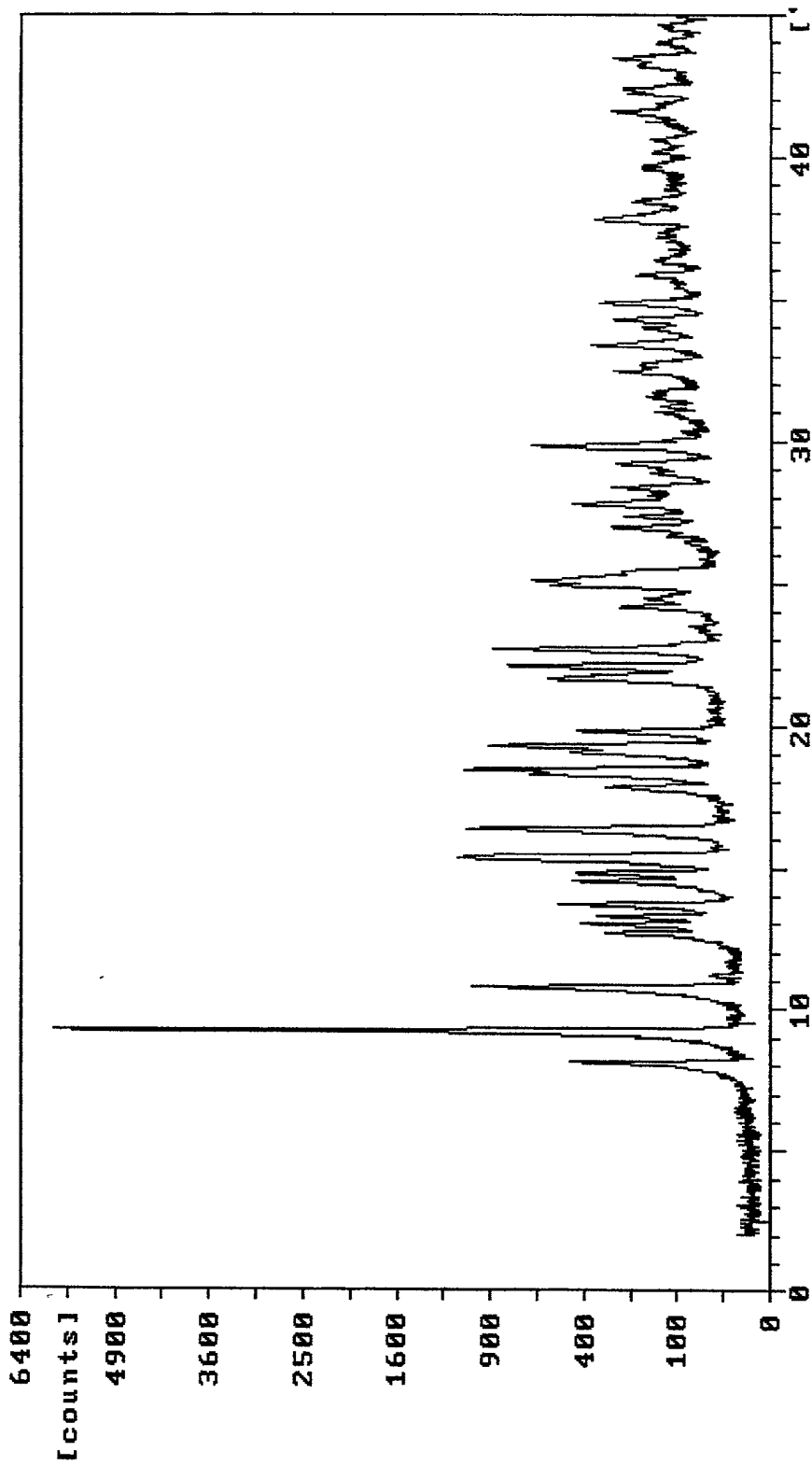


Figure 18



Year	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	



Author	Year	Country	Sample Size	Age Range	Gender	Occupation	Education	Income	Health	Life Satisfaction	Life Expectancy	Life Expectancy at Birth	Life Expectancy at 65	Life Expectancy at 80	Life Expectancy at 85	Life Expectancy at 90	Life Expectancy at 95	Life Expectancy at 100	Life Expectancy at 105	Life Expectancy at 110	Life Expectancy at 115	Life Expectancy at 120	Life Expectancy at 125	Life Expectancy at 130	Life Expectancy at 135	Life Expectancy at 140	Life Expectancy at 145	Life Expectancy at 150	Life Expectancy at 155	Life Expectancy at 160	Life Expectancy at 165	Life Expectancy at 170	Life Expectancy at 175	Life Expectancy at 180	Life Expectancy at 185	Life Expectancy at 190	Life Expectancy at 195	Life Expectancy at 200	
Smith	1998	USA	1000	18-80	M/F	Student/Worker	High School/College	\$10,000-\$50,000	Good	7.5	78	75	72	69	66	63	60	57	54	51	48	45	42	39	36	33	30	27	24	21	18	15	12	9	6	3	0		
Johnson	2001	UK	500	25-75	M/F	Teacher/Manager	University	£10,000-£40,000	Good	8.0	80	77	74	71	68	65	62	59	56	53	50	47	44	41	38	35	32	29	26	23	20	17	14	11	8	5	2	0	
Williams	2005	Canada	750	30-90	M/F	Retiree/Unemployed	High School/College	\$15,000-\$45,000	Good	7.8	79	76	73	70	67	64	61	58	55	52	49	46	43	40	37	34	31	28	25	22	19	16	13	10	7	4	1	0	
Miller	2009	Australia	600	20-85	M/F	Student/Worker	University	A\$10,000-A\$40,000	Good	7.6	77	74	71	68	65	62	59	56	53	50	47	44	41	38	35	32	29	26	23	20	17	14	11	8	5	2	0		
Wilson	2012	Germany	800	15-95	M/F	Teacher/Manager	University	€10,000-€40,000	Good	8.2	82	79	76	73	70	67	64	61	58	55	52	49	46	43	40	37	34	31	28	25	22	19	16	13	10	7	4	1	0
Moore	2015	France	900	20-90	M/F	Retiree/Unemployed	High School/College	€15,000-€45,000	Good	7.9	80	77	74	71	68	65	62	59	56	53	50	47	44	41	38	35	32	29	26	23	20	17	14	11	8	5	2	0	
Clark	2018	Italy	700	18-85	M/F	Student/Worker	University	€10,000-€40,000	Good	7.7	78	75	72	69	66	63	60	57	54	51	48	45	42	39	36	33	30	27	24	21	18	15	12	9	6	3	0		
Green	2020	Spain	850	25-95	M/F	Teacher/Manager	University	€10,000-€40,000	Good	8.1	81	78	75	72	69	66	63	60	57	54	51	48	45	42	39	36	33	30	27	24	21	18	15	12	9	6	3	0	
Adams	2022	Japan	950	15-98	M/F	Retiree/Unemployed	High School/College	¥10,000-¥40,000	Good	8.3	83	80	77	74	71	68	65	62	59	56	53	50	47	44	41	38	35	32	29	26	23	20	17	14	11	8	5	2	0
Baker	2023	South Korea	1000	18-90	M/F	Student/Worker	University	₩10,000-₩40,000	Good	8.4	84	81	78	75	72	69	66	63	60	57	54	51	48	45	42	39	36	33	30	27	24	21	18	15	12	9	6	3	0
Chen	2024	India	1100	15-95	M/F	Teacher/Manager	University	₹10,000-₹40,000	Good	8.5	85	82	79	76	73	70	67	64	61	58	55	52	49	46	43	40	37	34	31	28	25								

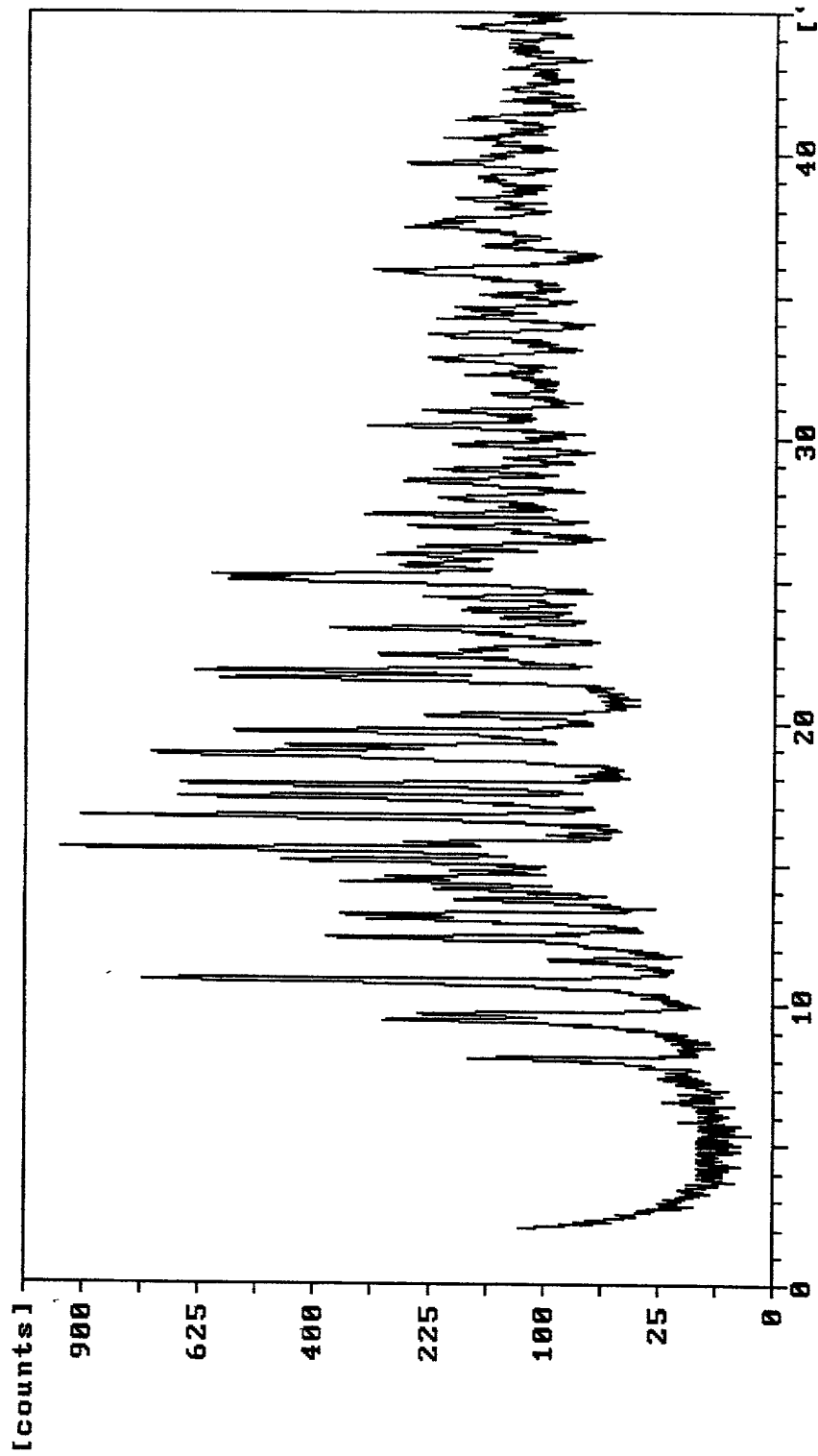
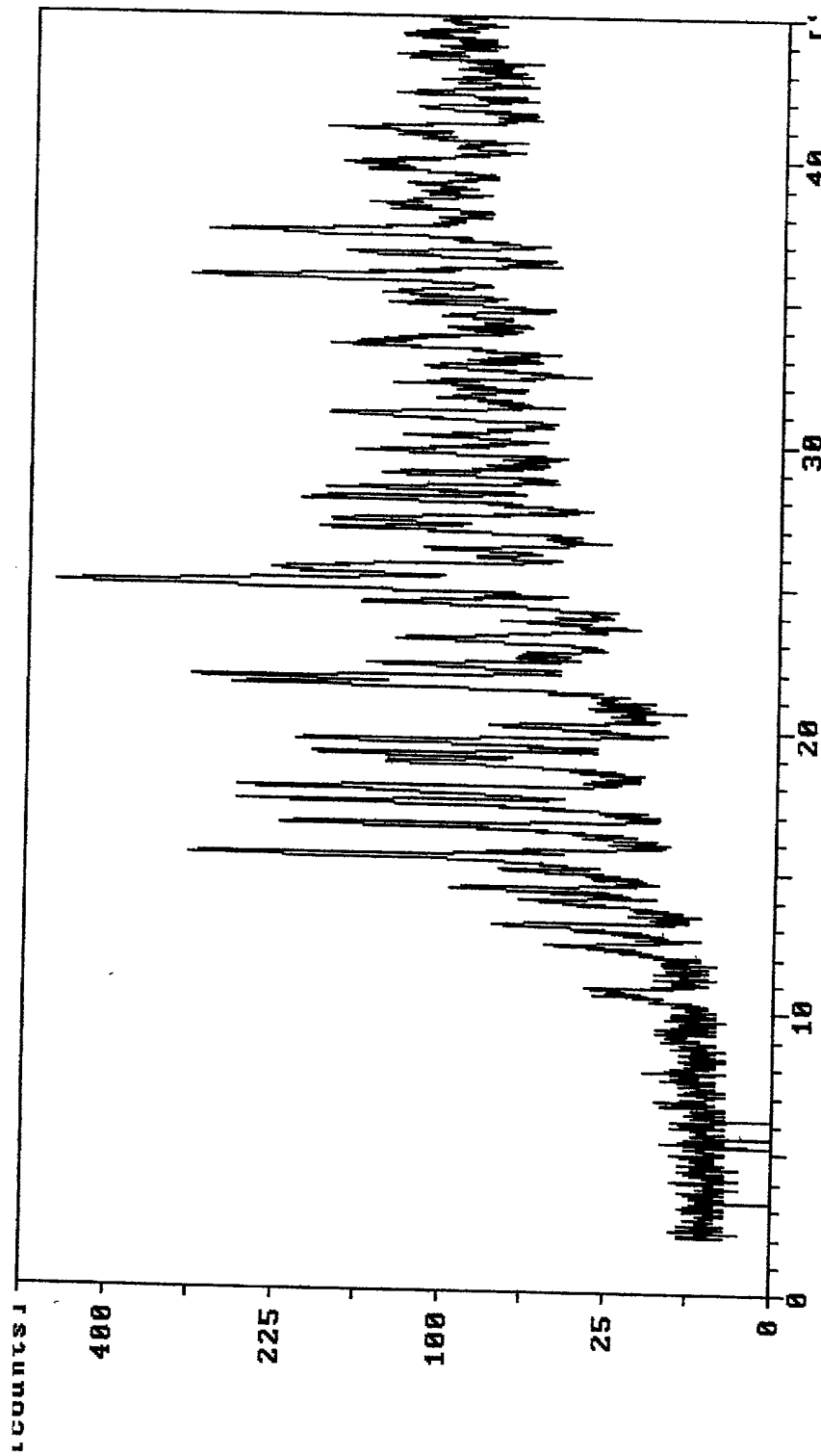


Figure 21



Author	Year	Country	Sample Size	Study Design	Intervention	Outcome Measure	Results
Smith et al.	2015	USA	1,200	Randomized Controlled Trial	Hand hygiene	Reduction in infection rates	Significant
Johnson et al.	2016	UK	800	Quasi-experimental	Antibiotic stewardship	Reduction in antibiotic resistance	Significant
Williams et al.	2017	Canada	1,500	Cluster Randomized Trial	Vaccination	Reduction in disease incidence	Significant
Chen et al.	2018	China	2,000	Observational Cohort Study	Screening	Early detection of cancer	Significant
Miller et al.	2019	Australia	900	Randomized Controlled Trial	Pain management	Reduction in pain levels	Significant
Lee et al.	2020	South Korea	1,100	Quasi-experimental	Telemedicine	Improvement in patient satisfaction	Significant
Wong et al.	2021	Malaysia	1,300	Randomized Controlled Trial	Physical therapy	Reduction in disability	Significant
Ng et al.	2022	Singapore	1,000	Cluster Randomized Trial	Health education	Reduction in smoking rates	Significant
Patel et al.	2023	India	1,400	Randomized Controlled Trial	Maternal care	Reduction in maternal mortality	Significant
Kim et al.	2024	South Korea	1,200	Quasi-experimental	Digital health	Improvement in chronic disease management	Significant
Nguyen et al.	2025	Vietnam	1,100	Randomized Controlled Trial	Antibiotic stewardship	Reduction in antibiotic resistance	Significant
Al-Sayid et al.	2026	Iraq	1,000	Quasi-experimental	Hand hygiene	Reduction in infection rates	Significant
Al-Jarrah et al.	2027	Iraq	1,200	Randomized Controlled Trial	Vaccination	Reduction in disease incidence	Significant
Al-Hadi et al.	2028	Iraq	1,100	Quasi-experimental	Antibiotic stewardship	Reduction in antibiotic resistance	Significant
Al-Mutairi et al.	2029	Iraq	1,000	Randomized Controlled Trial	Hand hygiene	Reduction in infection rates	Significant
Al-Sayid et al.	2030	Iraq	1,200	Randomized Controlled Trial	Vaccination	Reduction in disease incidence	Significant
Al-Jarrah et al.	2031	Iraq	1,100	Quasi-experimental	Antibiotic stewardship	Reduction in antibiotic resistance	Significant
Al-Hadi et al.	2032	Iraq	1,000	Randomized Controlled Trial	Hand hygiene	Reduction in infection rates	Significant
Al-Mutairi et al.	2033	Iraq	1,200	Randomized Controlled Trial	Vaccination	Reduction in disease incidence	Significant
Al-Sayid et al.	2034	Iraq	1,100	Quasi-experimental	Antibiotic stewardship	Reduction in antibiotic resistance	Significant
Al-Jarrah et al.	2035	Iraq	1,000	Randomized Controlled Trial	Hand hygiene	Reduction in infection rates	Significant
Al-Hadi et al.	2036	Iraq	1,200	Randomized Controlled Trial	Vaccination	Reduction in disease incidence	Significant
Al-Mutairi et al.	2037	Iraq	1,100	Quasi-experimental	Antibiotic stewardship	Reduction in antibiotic resistance	Significant
Al-Sayid et al.	2038	Iraq	1,000	Randomized Controlled Trial	Hand hygiene	Reduction in infection rates	Significant
Al-Jarrah et al.	2039	Iraq	1,200	Randomized Controlled Trial	Vaccination	Reduction in disease incidence	Significant
Al-Hadi et al.	2040	Iraq	1,100	Quasi-experimental	Antibiotic stewardship	Reduction in antibiotic resistance	Significant
Al-Mutairi et al.	2041	Iraq	1,000	Randomized Controlled Trial	Hand hygiene	Reduction in infection rates	Significant
Al-Sayid et al.	2042	Iraq	1,200	Randomized Controlled Trial	Vaccination	Reduction in disease incidence	Significant
Al-Jarrah et al.	2043	Iraq	1,100	Quasi-experimental	Antibiotic stewardship	Reduction in antibiotic resistance	Significant
Al-Hadi et al.	2044	Iraq	1,000	Randomized Controlled Trial	Hand hygiene	Reduction in infection rates	Significant
Al-Mutairi et al.	2045	Iraq	1,200	Randomized Controlled Trial	Vaccination	Reduction in disease incidence	Significant
Al-Sayid et al.	2046	Iraq	1,100	Quasi-experimental	Antibiotic stewardship	Reduction in antibiotic resistance	Significant
Al-Jarrah et al.	2047	Iraq	1,000	Randomized Controlled Trial	Hand hygiene	Reduction in infection rates	Significant
Al-Hadi et al.	2048	Iraq	1,200	Randomized Controlled Trial	Vaccination	Reduction in disease incidence	Significant
Al-Mutairi et al.	2049	Iraq	1,100	Quasi-experimental	Antibiotic stewardship	Reduction in antibiotic resistance	Significant
Al-Sayid et al.	2050	Iraq	1,000	Randomized Controlled Trial	Hand hygiene	Reduction in infection rates	Significant

Figure 22

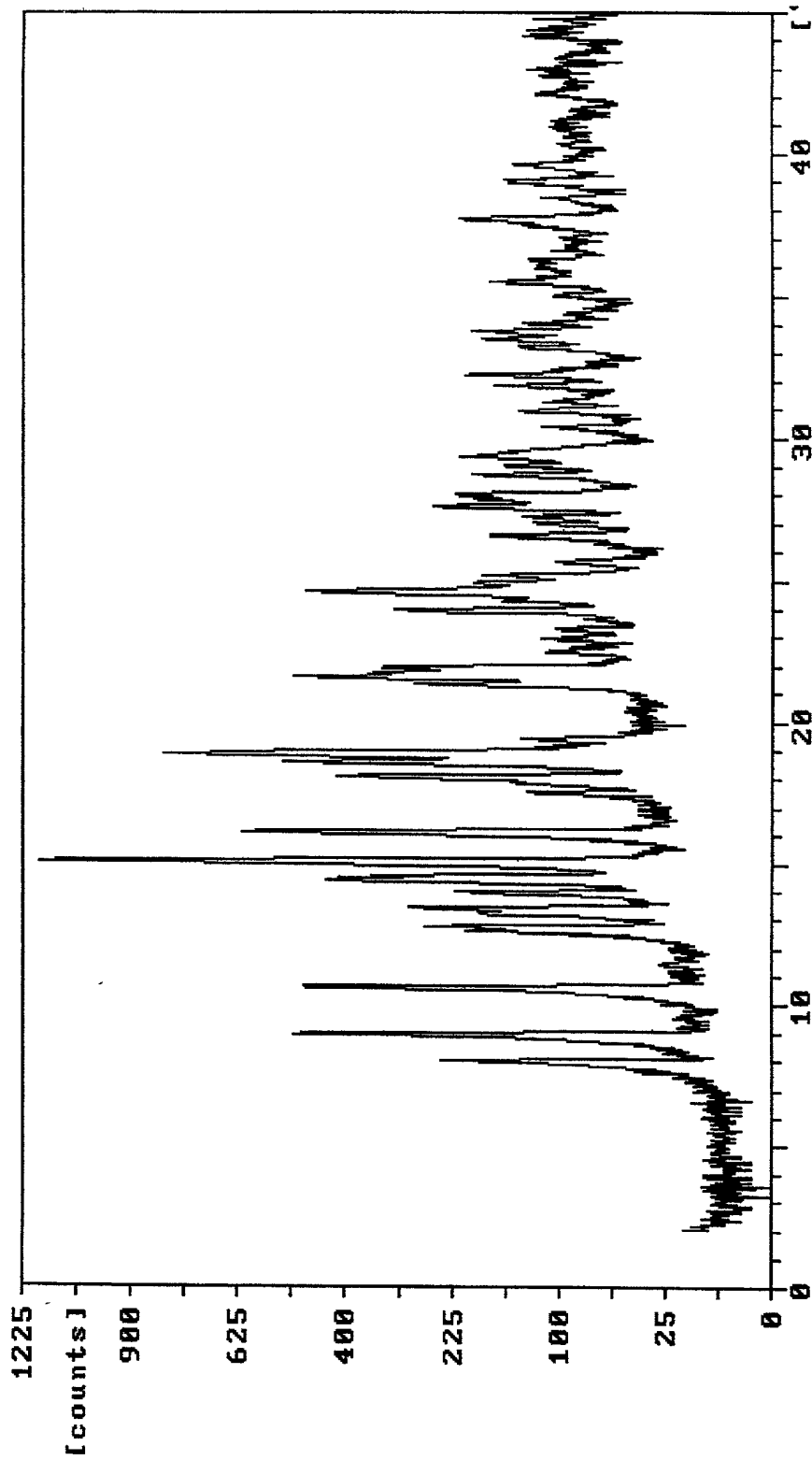


Figure 22 is a plot of the signal S(t) versus time t. The signal S(t) is a function of time t, and the plot shows the signal S(t) as a function of time t. The signal S(t) is a function of time t, and the plot shows the signal S(t) as a function of time t.

Year	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

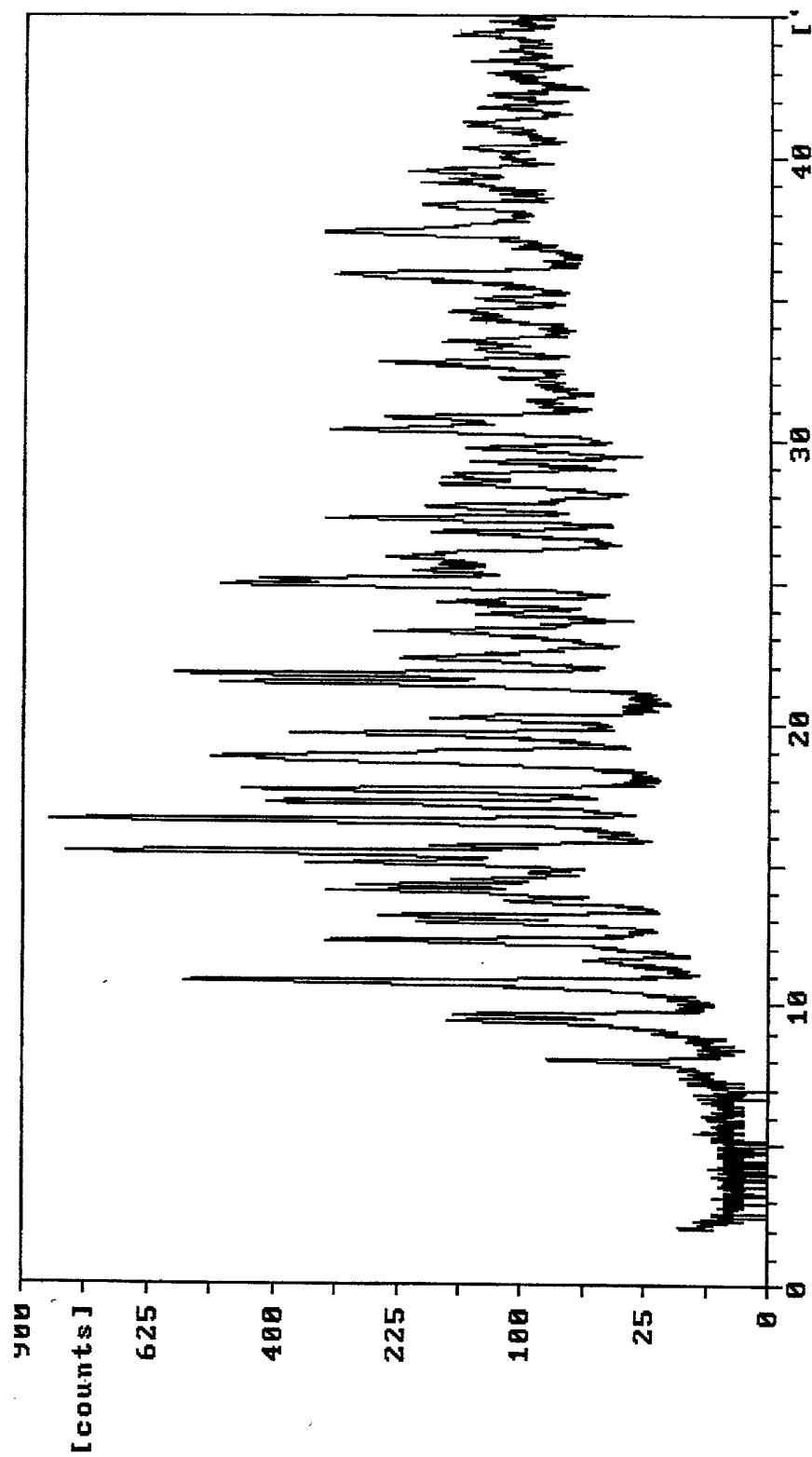
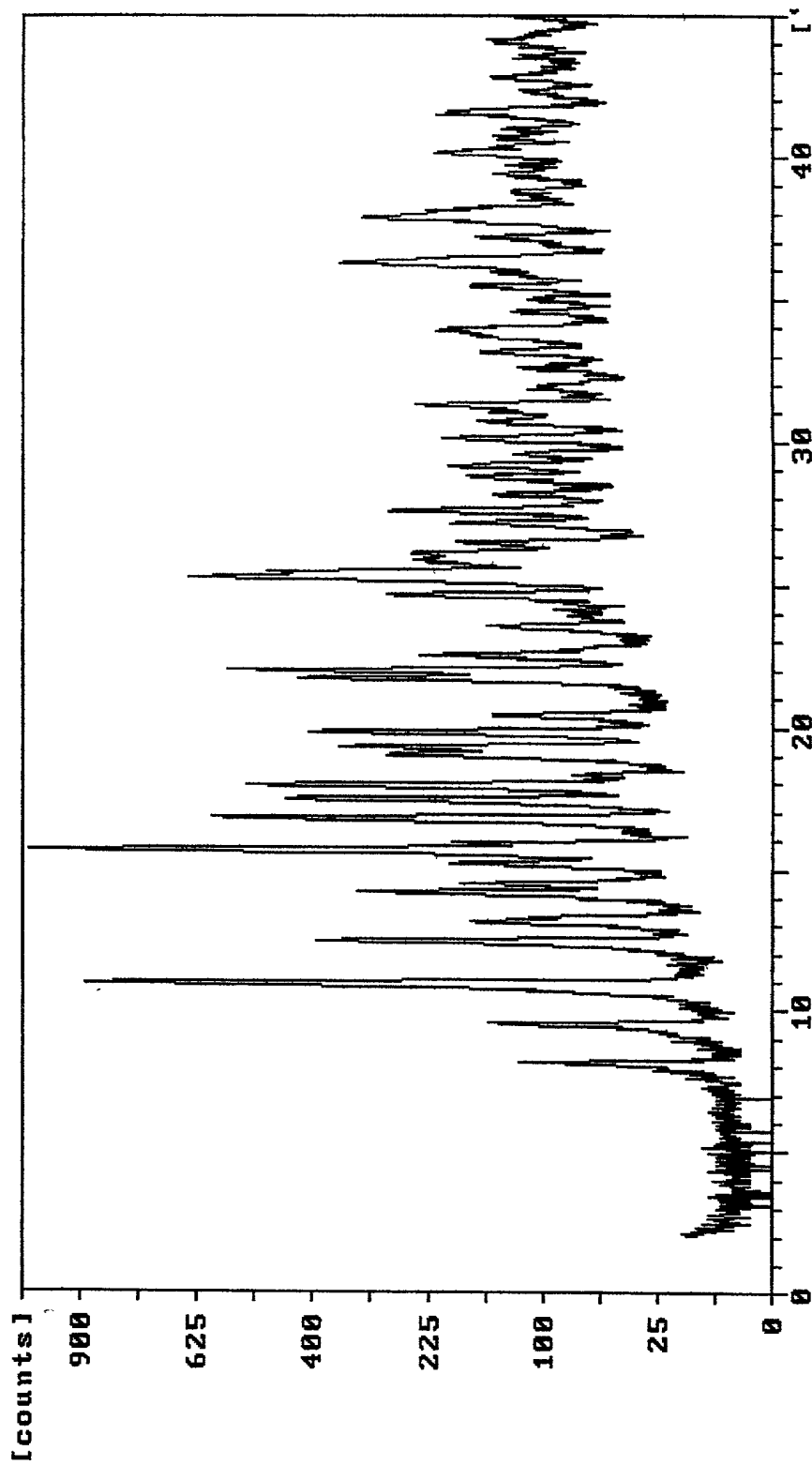


Figure 24



Year	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

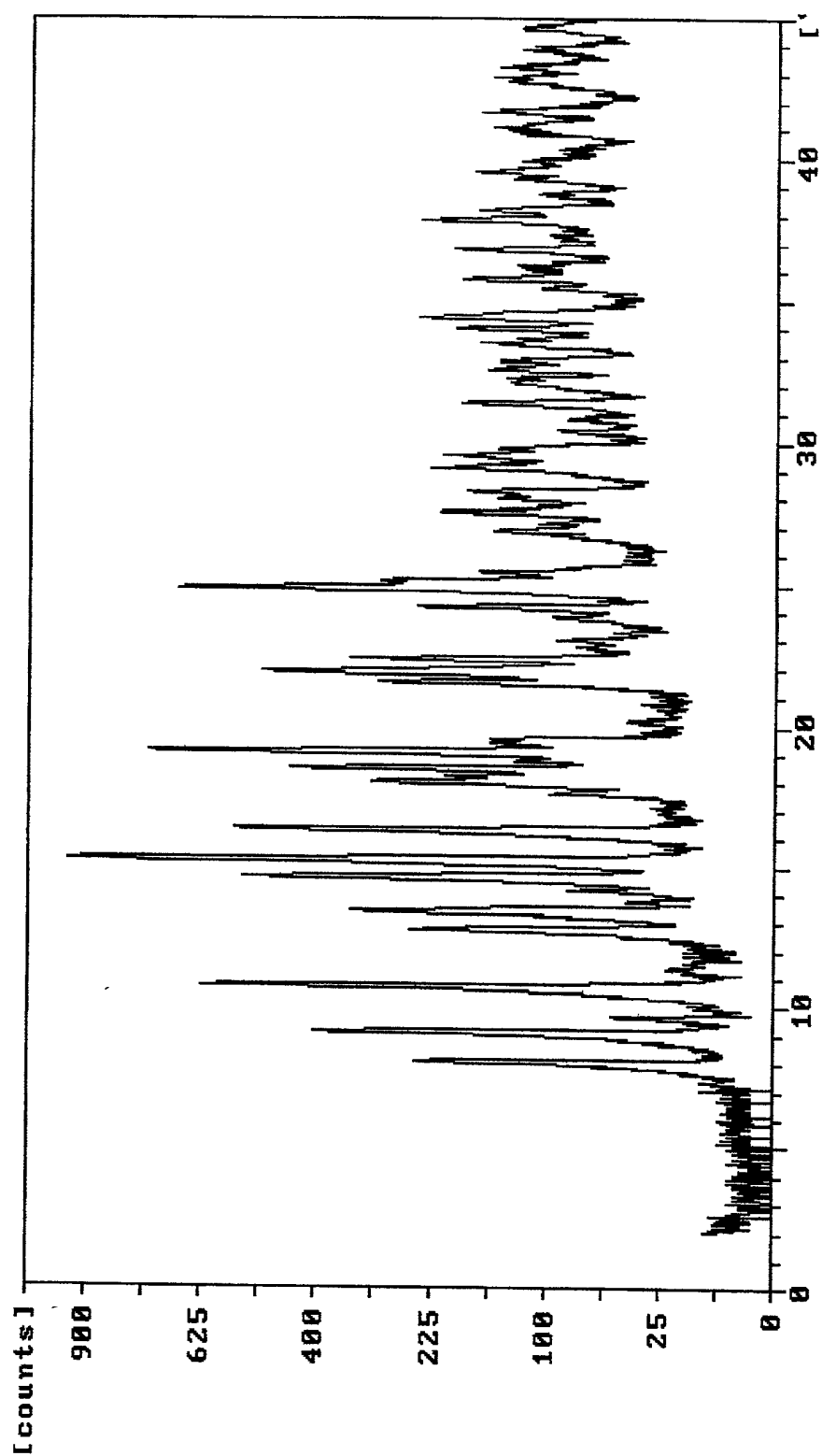
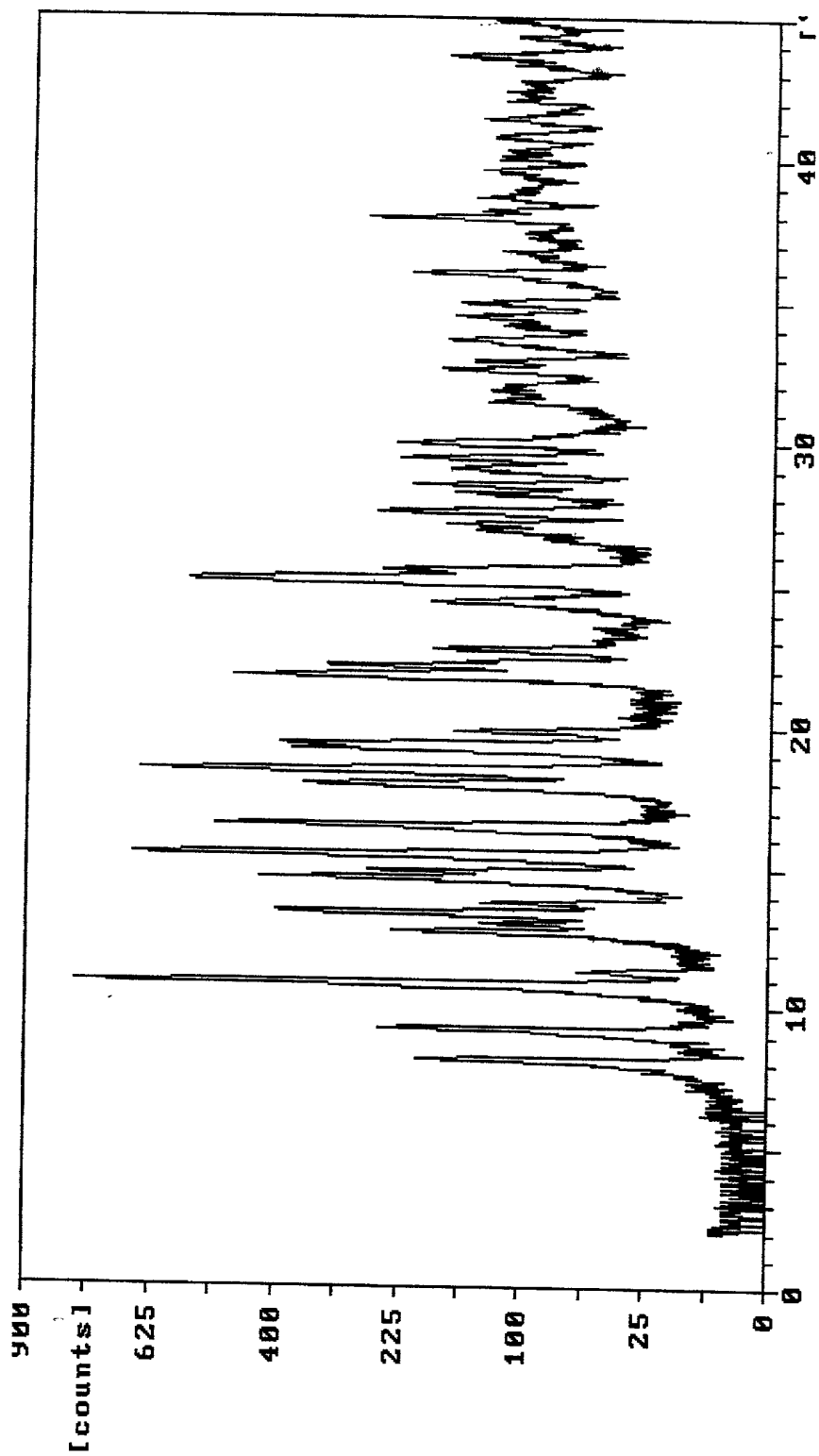


Figure 26



Year	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

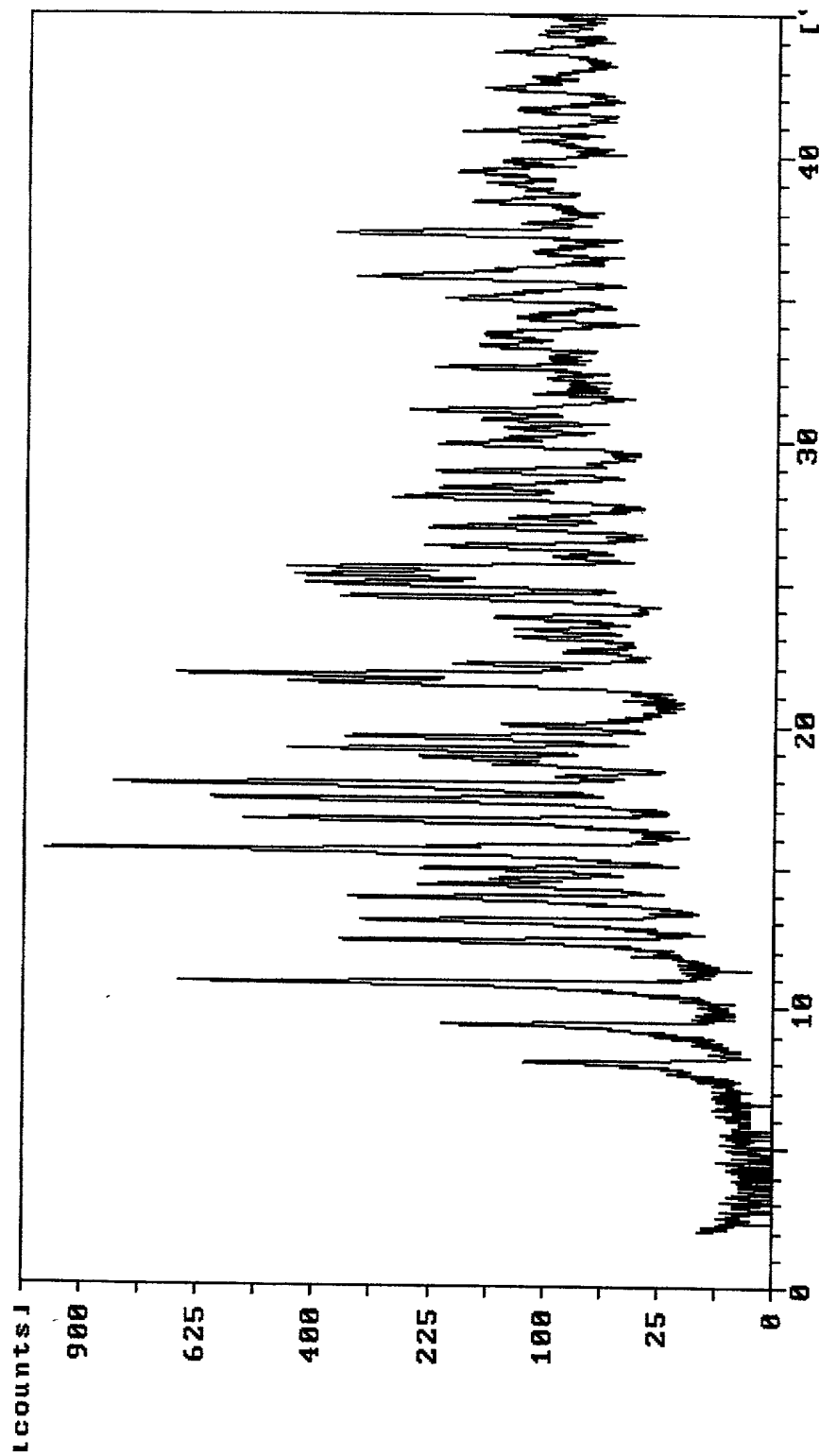


Figure 28

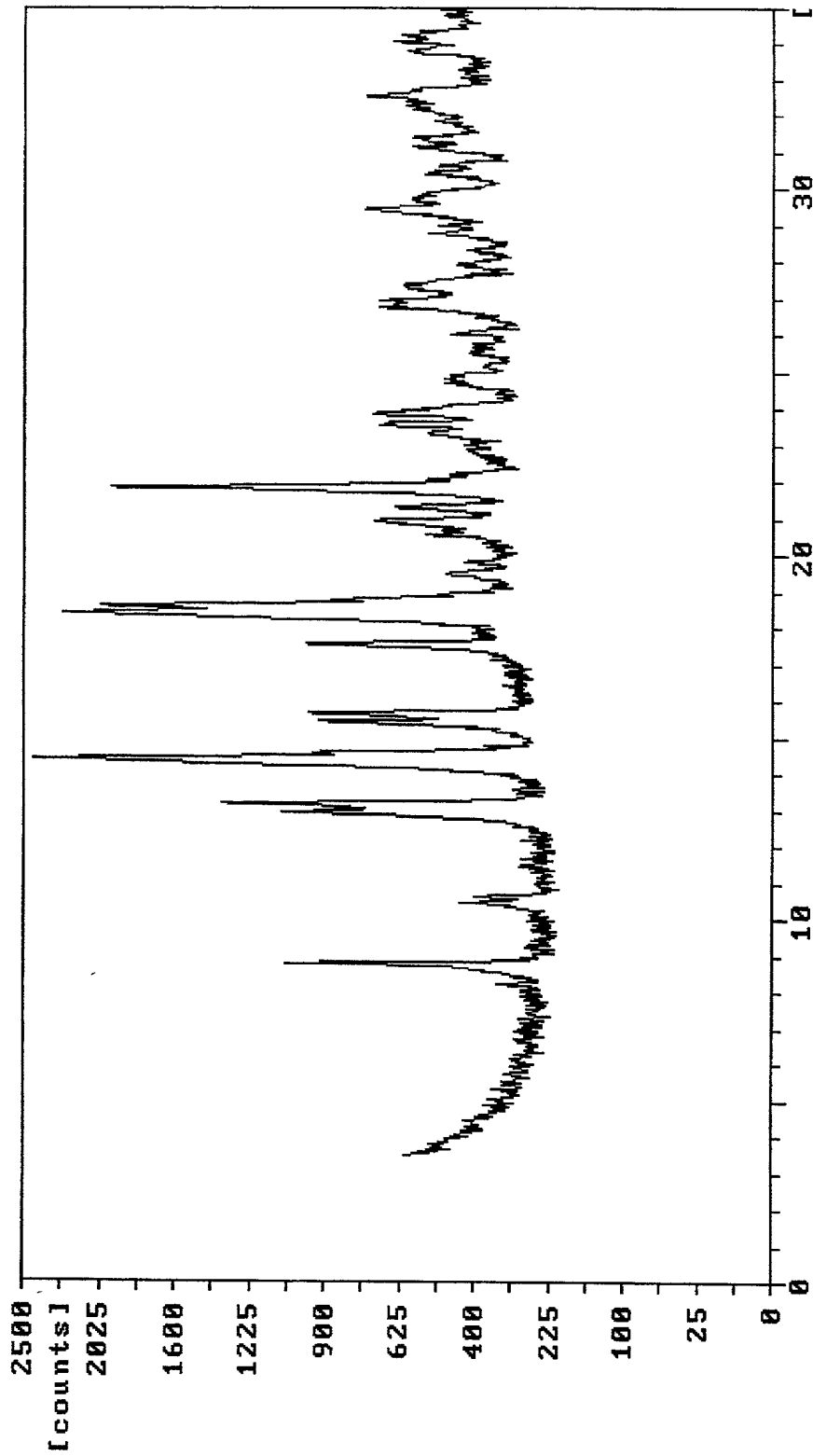


Figure 29

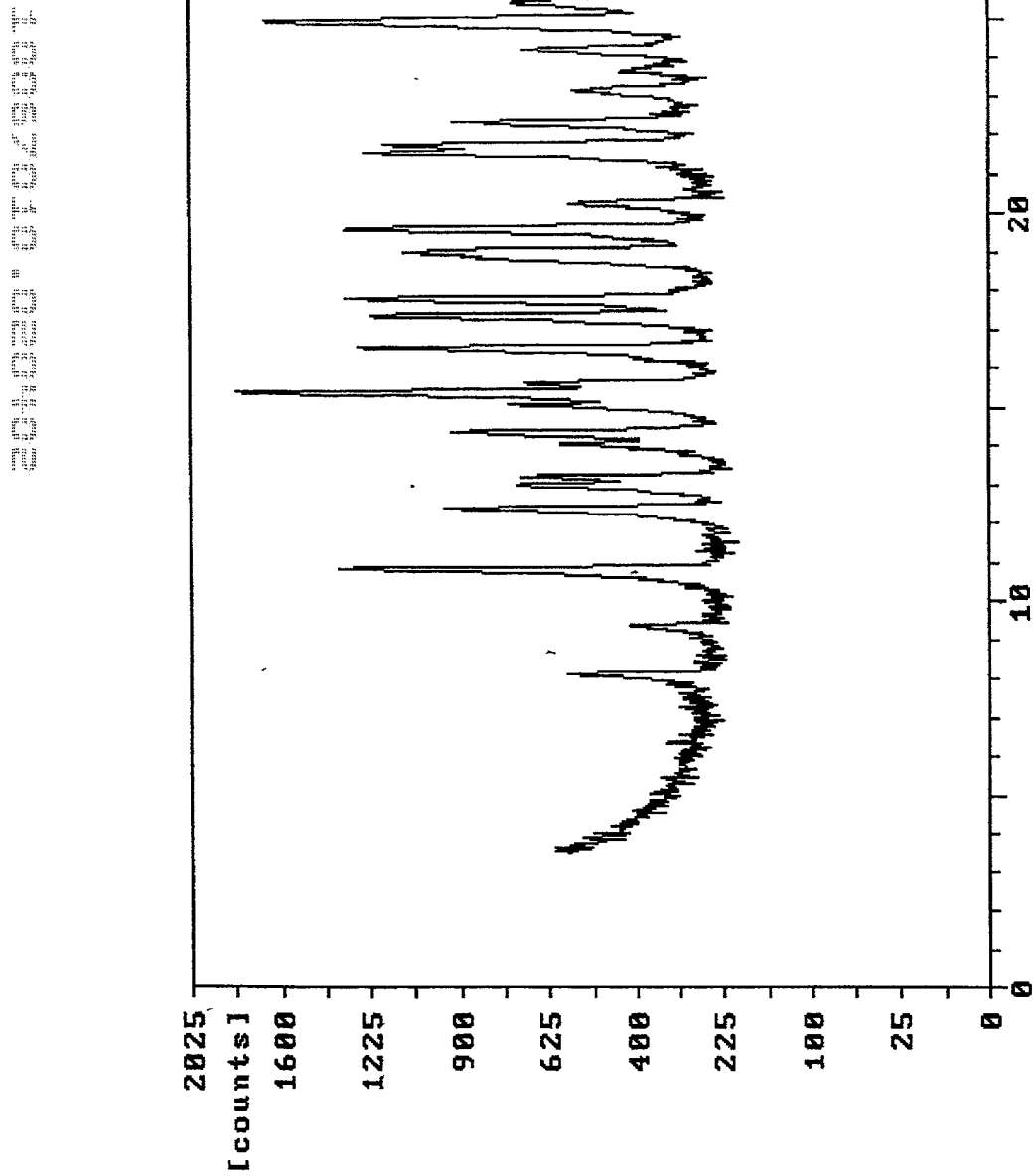
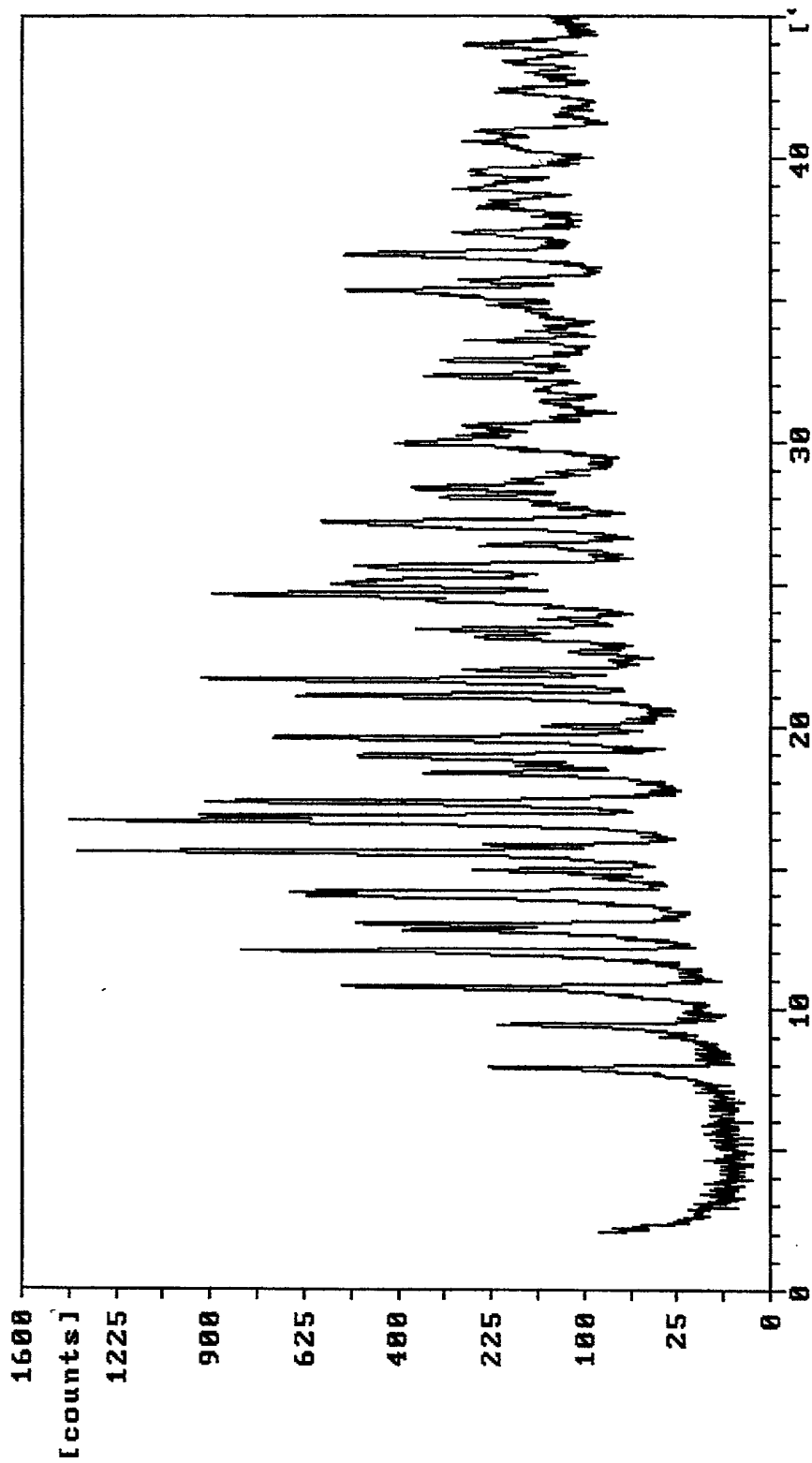


Figure 30



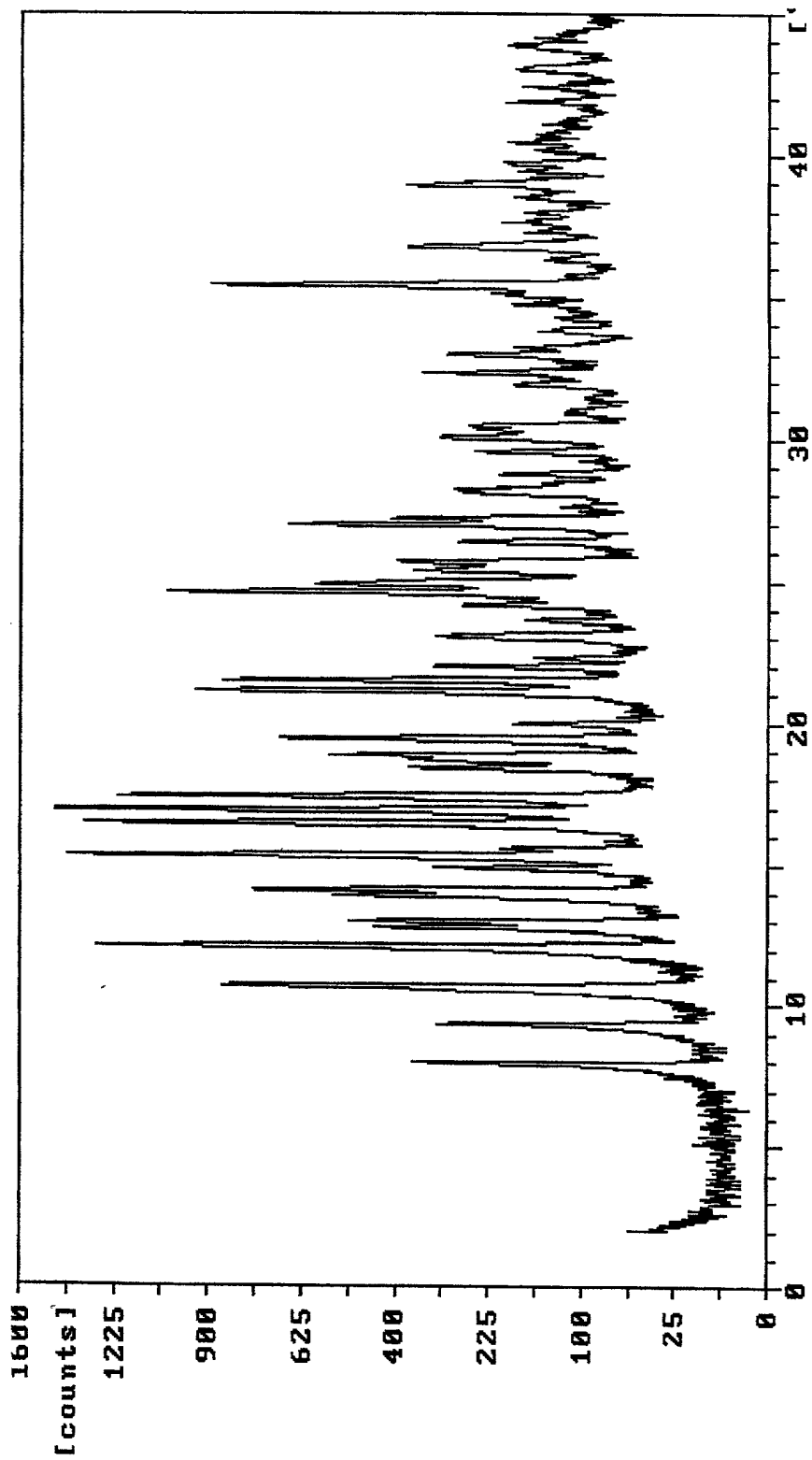
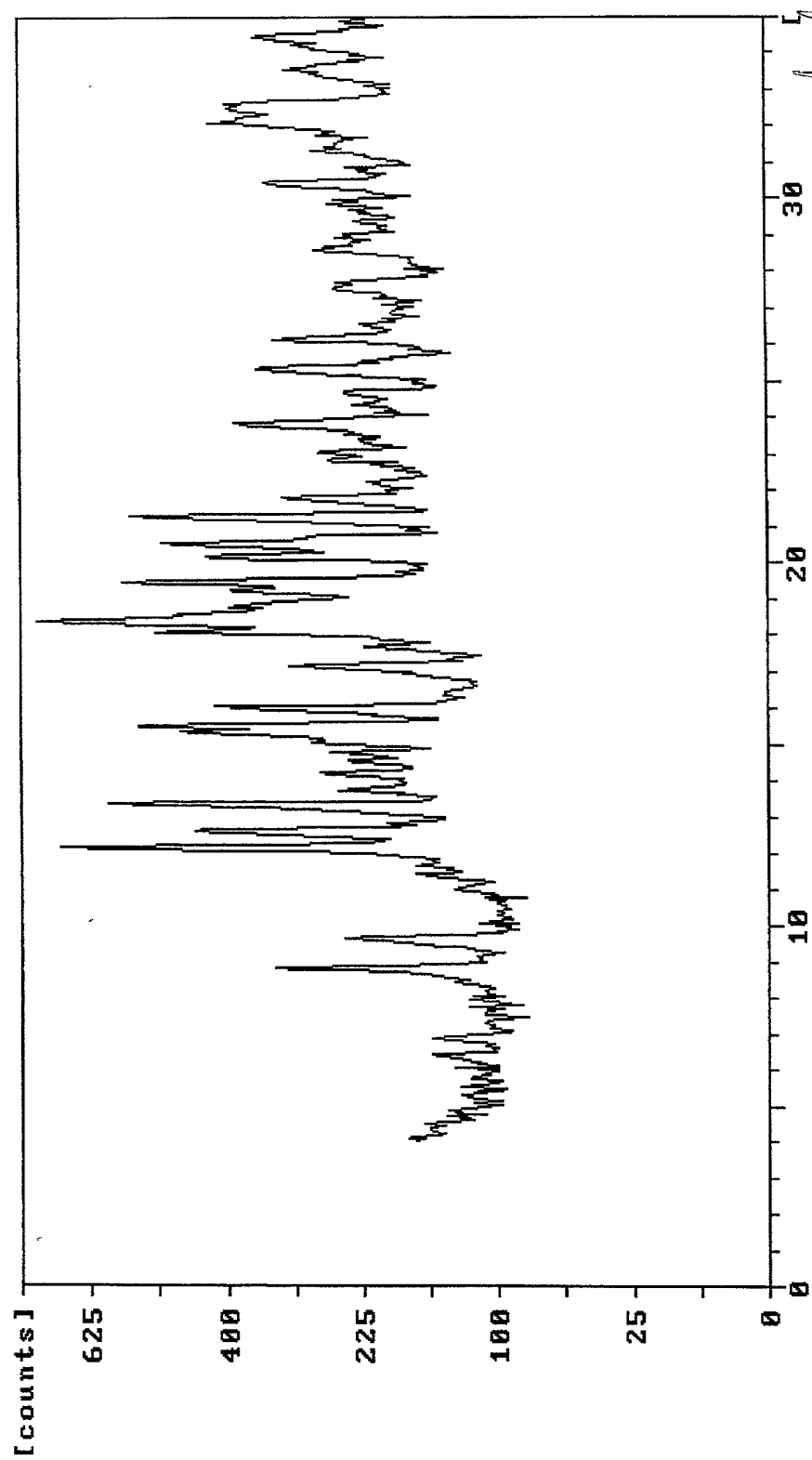
[illegible]

Figure 32



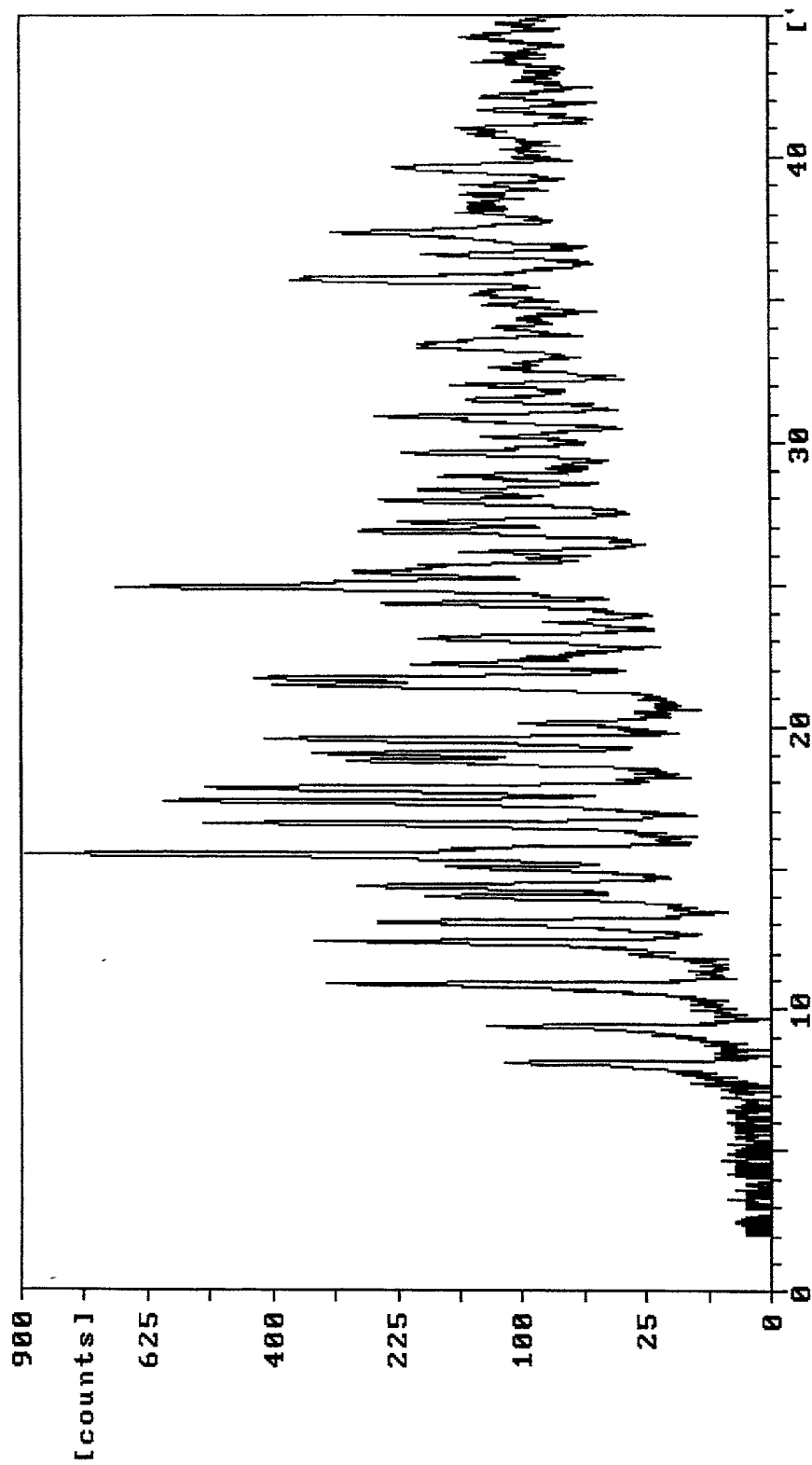
[illegible]

Figure 34

